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By-Rhodes, Albert Lewis

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This study was designed to examine the relationship between an adolescent's educational plans as reported by the adolescent himself and his mother's educational expectations for him as reported by her. The data were obtained in a previous study, a survey including a multistage, cluster sample of some 7,000 cases representing 13,484,000 public and private school students. The data had been gathered through questionnaires. Tests for interaction were used to determine if the effects of the mother's aspiration, race, and other characteristics influenced college plans. Findings indicated that a subject's plan to attend college was closely associated with his mother's educational expectation for him. This expectation was related to the mother's educational attainment and religion but was relatively independent of such characteristics as the subject's IQ and the socioeconomic status of the family. Negroes had the same level of educational aspiration as whites, but the mothers were less likely to expect that their children would go to college, primarily because of the cost involved. Negroes were also less likely to be enrolled in a college preparatory curriculum. Educational goals appeared to be formed at home and in the peer group, rather than in the school environment. (MS)

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FINAL REPORT
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EFFECTS OF PARENTAL EXPECTATIONS ON EDUCATIONAL PLANS OF WHITE AND NONWHITE ADOLESCENTS

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HEALTH, EDUCATION, AND WELFARE

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Albert Lewis Rhodes

Florida State University

Tallahassee, Florida

September 1968

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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PREFACE

This project represents a continuation of the research begun by Charles B. Nam, A. Lewis Rhodes, and Robert E. Herriott, Inequalities in Educational Opportunities, 1966 (U. S. Office of Education Contract No. OE-5-99-150). It represents an extension of part of the research in that report in that the present report involves an extensive multivariate analysis of the interrelationships that were discovered in that study. This study also includes characteristics of students and schools which were not considered in that previous study.

The project director was assisted by many people in the course of this research effort. It is appropriate to acknowledge the assistance of William Gustavus in the study of the relationship between aspirations and curriculum reported in chapter 6 and the effort of Kent C. Mommsen who is primarily responsible for the study of valuation of education reported in Appendix C. The author is indebted to Charles B. Nam, who is coauthor of Appendix D concerning the relationship between religion and plans, for helpful comments concerning other parts of the report although he is not responsible for the use to which his comments have been put. The author is also obliged to Charles M. Grigg, for advice concerning the preparation of the report and to J. Michael Coble for suggestions concerning the statistical analysis, but neither of them is responsible for the analysis or conclusions. The author wishes to acknowledge the assistance of many persons in the Institute for Social Research of Florida State University including Adele Spielberger for extensive computer programming, Mary Sperling, Gail Cameron, and Nancy Matthews for preparing the manuscript, and to students who provided clerical assistance.

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SUMMARY

Purpose of the Study (Chapter 1). This study differs from previous research in three respects. First, it examines the relationship between adolescent's educational plans as reported by the adolescent himself and his mother's educational expectations for him as reported by her. Previous studies have relied on the child *or* the mother as informant for both bits of information. The correspondence between youths' and mothers' aspirations are examined when various characteristics of the youth, the mother, the family, the school, and the community are controlled to see if such correspondence is spurious. Second, particular attention is directed to comparing the relationship between youth's and parent's aspirations for Negroes versus whites. Finally, some tests for interaction are accomplished to determine if the effects of mother's aspiration, race, and other characteristics (such as youth's intelligence, family income, etc.) are additive in their influence on college plans or if there is evidence of interaction. That is, do certain combinations of mother's expectation, race, and other characteristics produce unusually high or low levels of youth's aspirations? The study provides a more complete specification of how various characteristics of the individual himself, his family, his school, and his community affect his own educational plans and his mother's educational expectations for him.

Method (Chapter II). This is an ex-post-facto study involving re-analysis of data gathered for a nationwide study of inequality in educational opportunity because of race and religion. (Nam, Rhodes, and Herriott, 1966). Hence, the features of the design are largely fixed by those of the previous study. The data were originially obtained by the U.S. Bureau of the Census as part of the 1965 Current Population Survey of School Enrollment. (1967) That survey included a multi-stage, cluster sample of some 7,000 cases representing 13,484,000 public and private school students in the age group 14 through 19. Data were obtained from several sources; "any responsible adult" during the regular Current Population Survey household interview, by "leave behind" questionnaires for each subject, by a "leave behind" questionnaire for the mother, and by two mail

questionnaires to the principal of the school in which the student is enrolled, one concerning characteristics of the school and the other concerning characteristics of the pupil and his teacher. Response rates were exceptionally good on the "leave behind" questionnaires (87 percent) and fair on the principals' questionnaires (70 percent).

College aspirations of subjects were elicited by a series of questions as to whether or not the youth planned to finish high school, or to attend a junior college, a four-year college, and a graduate or professional school. Mothers were asked how much schooling they expected each of their children to get, with response categories indicating finishing or not finishing high school and various levels of college. Subject's plans and mother's expectations were dichotomized into college and noncollege categories. Measures of other variables and attributes considered in the analysis are described. These include: race, sex, age, intelligence test score, age-grade retardation, subject's value of college education as a success means, subject's perception of mother's expectation for him, mother's educational attainment, her farm or nonfarm background, her religion, and her value of college education as a success means. Occupation of household head and annual family income were also measured. The educational aspiration of subject's best friend was obtained on the subject's questionnaire. Three characteristics of the student body of the subject's school were obtained from the principal. These were the percent of the graduating class that went on to college, the percent of the tenth grade boys that dropped out before graduation, and the percent Negro in the school. The subject's place of residence was classified according to region and location in the central city, the ring, or outside of a Standard Metropolitan Statistical Area.

Several statistics were used in the analysis. Standard errors of percentages are given. Estimates of significance of difference between percentages are described. Measures of degree of association in zero-order relationship are described by Tau_b. A form of multivariate analysis is used to adjust the effects of mother's educational expectation on subject's plans. This involved the multiple classification of rates. The additive model is described and some simple tests for interaction are considered.

Subject's Plans, Mother's Expectations, Race, and Each of the Other Characteristics (Chapter III). There is no signigicant difference between Negro and white adolescents in percent having college plans; 53 percent of the whites and 50 percent of the Negroes plan to attend college. There is somewhat greater difference in mother's expectations; 62 percent of the whites and 54 percent of the Negroes have mothers who expect that the students will go to college. Some eighteen variables or attributes were examined for relationship with level of youth's plans. Mother's educational expectation for the youth was found to be more closely associated with the youth's plans than any other characteristic. The correspondence between youth's plans and mother's educational expectation is greater in the case of whites than in the case of Negroes. Mother's own report of her expectation is a better predictor of youth's plan than his report of his mother's expectation.

The educational plans of the youth's best friend (as reported by the youth, not his friend) is the second best predictor of the youth's own plans. Other characteristics which are found to be closely associated with youth's plans are listed in order of decreasing predictive power: mother's educational attainment, subject's and mother's valuation of college education as a means to success in life, and subject's intelligence test score. Occupation of head of household, family income, mother's religion, and the college-going rate for the school that the subject attends were somewhat less closely associated with subject's plans. Small but statistically significant relationships were found to exist between subject's plans and sex, age-grade retardation, mother's farm background, school dropout rate, percent Negro in the student body, and type of community in which the subject resides. It must be remembered that the size of the relationship between plans and the other characteristics is partly a function of differing levels of measurement, response rates, and other factors mentioned in the report.

Mother's educational expectation for her child is also found to be related to other characteristics in the same degree as was observed for subject's plans. Best friend's plans and mother's educational attainment are the best predictors of mother's expectation. Subject's and mother's value of college education as a success means, subject's I.Q., family income, occupation of household head, and age-grade retardation of subject are the next best predictors. College-going rate for subject's school and mother's religion are also predictive of mother's expectation.

Since mother's expectation and subject's plans are related to the same characteristics, tests were made to determine if the relationship between youth's plans and mother's expectations is spurious when one or several of these characteristics is controlled. A subsequent multivariate analysis which included race and various combinations of the other characteristics revealed that this relationship is relatively independent of various combinations of the other characteristics (including as many as seven of the best predictors).

Given the high degree of relationship between subject's plans to attend college or not attend and his mother's expectation that he will go to college or not go, it seems reasonable to ask if this might not be some artifact of the study design. The design depended upon two questionnaires left in the home, one to be filled in by the subject himself and the other to be filled in by his mother. Since no supervisor controlled the self administration of these questionnaires, could the mother and her child (or children) have gotten together in their responses? A careful examination of correspondence between the detailed plans of the youth and the detailed expectations of the mother should lead one to reject this explanation since there is considerable difference between mothers and their children within the broad categories of educational plans. That is, although youths and their mothers may agree that the youth will go to college, they may differ with regard to the number of years that the youth will attend and whether or not he will go to a professional or graduate school, etc. Similarly, the youth may plan to attend some business school or trade school while his mother may not expect him to finish high school, or some counter condition can also be observed. One feature of the analysis of detailed plans and expectations is that Negro boys and girls and white girls are more likely to plan to attend junior college than white boys. This is true even if these subjects ultimately intend to finish college and go to a professional or graduate school. While it is possible that in some families there may have been an organized attempt by the mother and her children to get consistency among responses to the educational aspirations item, it is unlikely that this accounts for the close correspondence between mother's and youth's aspirations because the questions are worded differently on different forms for the mother and her child. The lack of correspondence within detailed categories of educational aspiration supports this assumption.

Are Mother's Expectation, Race, and the Other Characteristics Additive in their Effects on Adolescent's Educational Plans? (Chapter IV). The tests for interaction are generally negative in that the sizeable deviations from the additive model are primarily confined to the smallest subgroups. A consistent pattern of interaction was observed to exist between race and mother's expectation relative to subject's plans. Negro subjects whose mothers expect them to go to college are less likely to plan for college than the additive model predicts, while Negro subjects whose mothers do not expect them to go to college are more likely to plan for college than the model predicts. This pattern holds when each of the characteristics of the subject, his mother, his family, his school, and his community are introduced as controls. Some exceptions to the pattern were observed for Negro boys whose mothers expect them to go to college: those with high I.Q. scores, or whose mothers went to college, or who are enrolled in schools with a high college-going rate or a low dropout rate are more likely to plan for college than the model predicts.

Separate Multivariate Analyses for Negroes and Whites (Chapter V). Since the major interaction was observed to occur between mother's educational expectation and race, separate multiple-classification analyses were performed for Negroes and whites in order to compare adjusted effects of mother's expectation and other characteristics on Negro versus white levels of aspiration. Selected control variables were grouped in two groups. One group included things like mother's and subject's value of education, best friend's plans and college-going rate of school which were assumed to have normative or subcultural implications. The other control variables were combined in a composite measure of economic resources which included a number of teenagers, family income, and gross identification of occupational level as an indicator of stability of income.

The results of adjusting the effects of mother's expectation on subject's plan by several or all of the seven control characteristics reveal that the normative characteristics have some effect on the mother-child aspirations relationship, but it is not spurious when these characteristics are used in the adjustment. There is also attenuation of the plans-expectations relationship when the economic resources measure is used for adjustment. The implication of this observation is that even though economic resources of the family figure in mother's and child's educational aspirations, they are not of overriding importance.

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The most significant aspect of this series of adjustments is the observation that there is some effect of mother's expectations on youth's plans that is relatively independent of all the characteristics considered in this study. This is true for both whites and Negroes. Perhaps the most surprising finding is that the economic resources composite measure carries so little weight in the analysis. These results suggest that further study of adolescent aspirations should focus on parental values and practices connected with instilling motivation rather than on more diffuse normative factors or economic considerations.

Although the results of the multiple classification analysis are similar for whites and Negroes, some differences should be noted. When seven characteristics are entered into the adjustment, the effect of mother expecting college is the same for Negroes and whites, but the effect of mother not expecting college is greater for whites than for Negroes. The value of education items carry more weight for whites than for Negroes. Is this because of the general pervasive high valuation of education which seems to hold throughout the Negro subculture? The adjusted effects of mother's educational attainment and best friend's plans are greater for Negroes than for whites, while the effects of the economic characteristics are less for Negroes than for whites because of the restricted socioeconomic status of Negroes.

A deviant case analysis of those instances where mother and subject disagree on plans to attend college is hampered by missing data concerning reasons for plans. Skimpy evidence suggests that in those cases where the subject does not plan to go to college and his mother expects him to go, the youth plans to enter some trade. This is particularly true for Negroes. In those cases where the mother and youth agree about his education, difficulty with school work or cost of college are most frequently mentioned. In those few cases in which the youth plans to go to college but the mother does not expect him to go, difficulty with schoolwork and cost are more frequently mentioned by the mother. There are too few cases to place any reliance in these observations. A new study should be done in which the formation of plans and rationalizations for plans are surveyed as they emerge within the family setting.

High-school Curriculum and Aspirations of Youth (Chapter VI). Studies of the relationship between college aspiration and subsequent attendance at college indicate that aspirations have an element of fantasy for some persons. (Folger and Nam, 1967; Sewell and Shah, 1967) No data were available in the present study concerning whether or not a subject attended college. Therefore, another sort of behavior, enrollment or nonenrollment in a college curriculum, was examined to see if there was any connection between it and subject's plans and mother's expectations. Other characteristics which were shown to be closely related to plans were included in a multivariate analysis. These included subject's intelligence test score, mother's educational attainment, and college-going rate for subject's school. Separate analyses were accomplished for whites and Negroes.

Chances of being enrolled in a college-preparatory curriculum are related to intelligence test score in the case of whites but not in the case of Negroes. About three-fifths of the whites with I.Q. over 105 are enrolled in the college preparatory curriculum, while less than a fourth of those with lower I.Q. scores are enrolled in that curriculum. The rates for both high and low I.Q. Negroes are around 25 percent. (However, college-prep rates for Negroes lacking I.Q. information are about seven percent lower.) Plans of subject and expectations of mother make a difference in chances that the subject will be enrolled in a college-prep curriculum, even if the rates are adjusted for I.Q. and other characteristics. There is little difference between whites and Negroes in the effect of plans on curriculum. Mother's educational attainment has a powerful effect on the chances that Negro subjects will be enrolled in a college curriculum, particularly if the mother has attended college. The effect for whites is modest.

Best friend's plans make somewhat more of a difference for whites than for Negroes, while principal's estimate of percent of graduates going on to college makes more of a difference for Negroes than for whites. Neither characteristic is a particularly good predictor of curriculum.

The results of this analysis suggest that chances of being enrolled in a college preparatory curriculum are related to some of the same characteristics that were observed to be associated with college plans. Greater differences between whites and Negroes are observed regarding type of curriculum in which they are enrolled than are observed regarding college plans. Negroes are much less likely to be enrolled in a college-prep curriculum. (They are more likely to be enrolled in a "general" curriculum.) The only exception is that Negroes with college educated mothers have the same percent in a college-prep curriculum as whites. Since peer plans and college-going rate of school make more difference for Negroes than for whites, it is possible that school desegregation could serve to put more Negroes in the college-preparatory series of courses.

Supplementary Study--Reasons for Educational Plans (Appendix B). Enrollees who plan to leave college before graduation were asked why? Whites, particularly boys, were more likely to mention dislike of school as the main reason. Negro males were more likely to mention desire to get a job. Negro females were more likely to mention financial reasons including need to help family. There were no bright Negroes who indicated that they intended to drop out of school.

Dropouts were asked their reason for leaving school. Boys, particularly Negro boys, were more likely to mention desire to get a job. Girls were more likely to mention marriage.

Enrollees who do not plan to attend college were asked why not? Desire to get a job or learn a trade were frequently given as reasons, especially by Negroes. A large nonresponse rate to this item places this finding in question.

Mothers of subjects planning for college (and who expect their child to go to college) were asked how the family plans to pay for college. Negro males are three times more likely than white males to have mothers who indicate that they will not be able to pay any of the cost; Negro females are twice as likely to have families who cannot pay for college. Parents of white subjects plan to pay a larger fraction of their child's college expenses than parents of Negro subjects. On the other hand, Negro families with higher incomes are more likely to have a regular savings plan to pay the bulk of the cost of their sons' college education than white families in the same income category.

Supplementary Study--Negro-White Differences in Valuation of Alternative Success Means (Appendix C). Subjects (and their mothers) were asked to choose from a list "the best way for young people to get ahead in life." Sex, intelligence test score, occupation of household head, and family income were used as control variables. "Get a college education" was the most frequently selected means; 61 percent of the Negroes and 56 percent of the whites chose it. The effects of income and occupation levels on choice of college education as a success means are largely additive. The higher rate of Negroes choosing college education as a success means holds within subgroups described by income and occupation or intelligence test score.

Comparison of mother's and subject's choices of success means shows that there is a close correspondence between these two. Making this comparison within race-sex subgroups, it can be seen that correspondence between mothers and children is greatest in the case of Negro males. These results are consistent with the general conclusion of this report: mother exerts a strong influence on subject's educational ambitions.

Supplementary Study--The Effect of Mother's Religion and Religious Composition of School on Subject's Educational Plans (Appendix D). There is a relationship between mother's religion and college plans which is somewhat independent of subject's I.Q. and year in school, mother's educational attainment, and occupation of head of household. Subjects whose mothers identify with the Baptist denominations or smaller Protestant denominations are less likely to plan for college. Those whose mothers are identified with the other large Protestant denominations or the Catholic Church are slightly more likely to plan to attend college. Subjects with Jewish mothers are much more likely to plan to attend college. The effects of school composition are additive. Subjects with Jewish mothers in schools with over-representation of Jewish students are more likely to have college plans than other subjects with Jewish mothers. Similarly, Catholics in predominantly Catholic schools are more likely to have college plans than other Catholics. Conversely, those whose mothers are identified with Baptist and small Protestant denominations in predominantly Protestant schools are less likely to plan for college than others in the same religious subgroups. These differences are somewhat independent of the effects of the control variables.

Review of the Results and Implications of the Findings (Chapter VII). It has been shown that chances that a subject will plan to attend college are closely associated with his mother's educational expectation for him along with other characteristics of his mother such as her educational attainment and religion. These relationships are relatively independent of a number of other characteristics which are thought to be very relevant for educational plans, specifically, the subject's I.Q. and socioeconomic status of his family and school. Controlling for characteristics of his school and community does not appreciably diminish the relationship between subject's plans and mother's educational expectation for the subject.

There are some differences between Negroes and whites with regard to the interrelationship between these variables. Negroes have the same level of aspiration as whites, but their mothers are less likely to expect that they will go to college and Negroes are less likely to be enrolled in a college preparatory curriculum. Negro parents are less likely to expect to meet the cost of sending their children to college; they are more likely to mention cost as the reason that their child will not go.

The implications of the findings are that educational aspirations are formulated in the home and the peer group; school climate is a relatively weak agent in the formulation of plans (at least as school climate is measured in this study). The findings of this study also suggest that mounting a massive, nationwide scholarship program would not have any great impact on college aspirations or attendance, at least as far as white students are concerned. Whites in the sample were more likely to mention dislike of school, desire to get a job or learn a trade as reasons for not attending college. Negroes, on the other hand, mentioned cost of college education or need to help family as reasons for not going to college. Hence, a scholarship program aimed at Negroes might serve to increase Negroes' chances of going to college. It should be noted, however, that Negroes were less likely to be enrolled in a college preparatory curriculum. Therefore, any program to increase Negro attendance at college should include counseling or direction in the early years of the secondary school experience.

THE EFFECTS OF PARENTAL EXPECTATIONS ON EDUCATIONAL PLANS OF WHITE AND NONWHITE ADOLESCENTS

CHAPTER I: INTRODUCTION

The Nature of the Problem

Educational ambitions of American youth have been the object of intensive investigation by sociologists and others for the past several decades. (Ohlendorf. *et al.*, 1967) It has become increasingly apparent that equalizing opportunity in the United States hinges in part upon levels of motivation and ambition in various subgroups of the population as well as on making available resources and facilities which have previously been denied to disadvantaged subgroups of the society. (Passow, 1963) Educational attainment is the link between structural position during the period of socialization-maturation and subsequent entry into the occupational structure. (Blau and Duncan, 1967, p. 330) But educational attainment is not simply a function of native ability, or even effective ability as shaped during the preschool and public school experiences. The level of education which a person eventually attains is also a function of his definition of schooling as worthwhile activity and his desire to maximize his level of educational attainment. Hence, educational aspiration and motivation have been identified as important variables which intervene between individual ability and structural position on the one hand and level of educational attainment on the other. (Duncan, Featherman, and Duncan, 1968, pp. 19-22)

The present study is limited in that it is confined to examining the effects of parental expectation together with selected individual and structural characteristics on adolescents' plans to attend college. It is rather curious that relationships between level of adolescent aspiration and his perception of parent's plans by characteristics of his family such as socioeconomic status, ethnicity, and size have been objects of rather exhaustive study while direct examination of the influence of parental expectation on youth's plans as reported by *both* parent and youth has been infrequent. (Rehberg and Westby, 1967; Sewell and Shah, 1968A) The present investigation will attempt to assess the influence of a child's mother on his educational plans. To be more specific, the task of this research is to examine the degree of correspondence between the youth's plans and his mother's expectation, the effect of mother's expectation on child's plans will be examined under varying sets of conditions.

Both the plans of the youth himself and his mother's expectation for him have been shown to vary with characteristics of the youth, characteristics of the family and with the larger social context in which child and parent live. (Berdie, 1954; Bordua, 1960, Simpson, 1962; Elder, 1963; Herriott, 1963; Sewell et al., 1964-1968; McDill and Coleman, 1965; Boyle, 1966) That is, the child's intelligence along with various social and economic factors may enter into the formation of the mother's expectation for the child and the formation of the child's own plans and the attitudes of mother and child toward education as a success means. Furthermore, the child may experience crosspressures between the influences of parents, peers and other agents of socialization. Hence, it seems desirable to study the relationship between youth's plans and mother's expectation under various sets of conditions in order to specify the situations under which parental influence is maximized or minimized. It is anticipated that mother's influence on educational aspiration will be greater for some types of youths than for others, that parental influence will be stronger in some types of families than in others, and that parental influence will vary from one kind of social milieu to another. (Bordua, 1960; Ellis and Lane, 1963; Kraus, 1964; Sewell and Shah, 1968a) The research strategy involves testing the correspondence between parent's and child's aspirations by introducing various characteristics of the child, the mother, the family and the milieu as control variables. This procedure will help to specify the conditions under which parental influence is maximized or minimized. The selection of attributes or variables to describe these conditions has been guided by several sorts of considerations. First, the analysis depends upon an ex post facto examination of data from a national study of inequality in educational opportunity which employed a crossectional rather than a longitudinal design. (Nam, Rhodes and Herriott, 1966) Hence, the characteristics of individuals, families, and social contexts had to be selected from among those considered in the parent study. Second, mother's expectations, individual ability, and certain measures of family status or school composition have been shown to be related to educational aspiration. (Berdie, 1954, p. 86; Stouffer quoted by Sexton, 1961, pp. 192-193; Sewell and Shah, 1968a) Finally, there are those factors which have low predictive power with regard to college plans but which command great interest with regard to equality of educational opportunity or regarding the relationship between education and occupation. These include race, sex, religious preference, racial composition of the school, and the place of residence. Therefore, these variables are featured in the analysis, even though preliminary analyses in the parent study indicates that other variables or attributes are more predictive of youths' plans. Furthermore, there is some tangential evidence that there may be some interaction between college plans and race, sex and socioeconomic status since there is interaction of these with educational attainment. (Nam, Rhodes and Herriott, 1966)

The report proceeds as follows: first a review of the related research is presented and the control variables are identified. Second, the design of the parent study is reviewed and the methodology of this study is described. Some limitations of the data are noted. The strategy of analysis is elaborated. Next the relationships between college plans and the test or control variables are reported. The relationship between detailed plans of the youth and mother's expectation is described. The relationship between mother's expectation and the control variables is also examined. Then the relationship between subject's plan and mother's expectation is examined when four kinds of characteristics are controlled. First characteristics of the individual himself are used as test or control factors. Next characteristics of the mother and family are introduced as test factors. Then characteristics of the youth's immediate milieu such as aspiration levels of his friend or his student body are considered. Then, place of residence as defined by geographic region and size of place is entered as a control to see if there is any variation in the relationship between mother's educational expectation for the youth and the youth's own plans according to type of residence.

After the mother-child-aspiration relationship has been examined while controlling for the effects of each of the test variables, the multivariate analysis is extended to incorporate the combined effect of simultaneously controlling for up to five characteristics. The selection of test characteristics at this point in the analysis is based on the outcomes of the three, four, and five variable analyses. The characteristics which are shown to have the greatest impact on the relationship between mother's expectation and child's plan in the lower-order partials are now introduced in several combinations for the higher-order multiple-classification analyses.

Next, a brief analysis of the deviant cases in the mother-child-aspiration table is presented. The reasons that a subject gives for not planning to go to college when his mother expects that he will go are displayed. Similarly, the reasons that the mother gives that she does not expect the subject to go to college when he plans to go are studied.

Finally, an analysis of the factors related to enrollment in a college-preparatory curriculum or some other kind of curriculum is made. The relationship between type of curriculum and the educational aspirations of mother and child is considered relative to the intelligence test score of the subject, the educational attainment of his mother, his best friend's plans and the college-going rate for his high school.

Appendices are attached to the report which treat issues related to the main body of the report. These include a study of reasons for plans and how parents plan to pay for the college education of college planners, a study of subject's alternative valuation of success means; and a study of subject's educational plans by religion of mother crossclassified with religion of school.

Theory

The educational plans of youth are an outcome of a complex process of involvement with various agents of socialization whose aims may be more or less congruent. The educational aspirations of an adolescent represent the end product first, of his informal interaction with parents and siblings within the home and later, interaction with peers in the neighborhood and school. His aspirations are also the product of his more formal interactions with teachers and peers in the classroom. Suppose that one assumes that native ability is evenly distributed throughout the population. Even if native ability were a constant, there would be great variation in the way that individuals fare in the educational system. There seems to be ample evidence that the preschool experience can make a child more or less ready to benefit from the formal school experience. His verbal facility, his ability to concentrate and direct his energies, his reactions to adult authority, and various other skills are all affected by his preschool experience. Success in school depends not only upon these skills and others, but also upon the child's health, upon his motivation to do well in school, upon his attraction to school subject matter, and upon his attention span. These qualities are partially due to his home experience in which his mother is normally the principle agent of socialization. It is apparent that *what the mother does in the home will be crucial to what the child does in school*.

Although research on the mother's contribution to the child's educational accomplishments has been primarily directed at studying effects on younger children, it is also recognized that parents continue to guide and motivate children in the upper grades. Of course, there are other influences from outside the home which assume greater importance as the child matures and his life space expands. Peers and teachers contribute to his attitudes, his motivations and his self evaluation. The kind of friends he has and the kind of school he attends will partially govern many of the choices he will make regarding his education and other matters. In fact, there is evidence that peer influence increases and parental influence lessens as youths advance through the school system. Nevertheless, it seems reasonable to argue that parental influence continues to be powerful, even during adolescence--directly, through day to day interaction in the family, and indirectly, through mother's impact on past socialization and on the child's response sets towards school and teachers which have been developed throughout the child's educational experience.

If these assertions are correct, then it should be apparent that a question which elicits a mother's expectation for her child's educational attainment taps more than her current evaluation of what she expects that he will accomplish. Her answer must also partially reflect her previous hopes and ambitions for the child and what steps, if any, that she has taken to realize her ambitions for him. This is not to deny that mothers revise their ambitions for their children according to the child's progress in school and the definitions that others attach to it. Doubtless there are some mothers who are disappointed and others who are pleasantly surprised by their children's educational accomplishments so that they lower or raise their educational goals for their children accordingly. A study of the process by which mother's educational ambitions for their children are formed and modified by the child's experience in school and other factors would be highly desirable. However, the data are lacking for that kind of study. Instead, attention is directed at variations in the plans of mothers and children across subgroups of the teen-age population described by various individual and social characteristics. This approach neglects events which occur in the unique socialization experience of individual children. Instead, the focus is on the consequences of being a certain kind of student, in a certain kind of family, in one kind of social setting, for choosing a particular level of educational attainment as a goal. Although ideally one would like to know what kind of life experiences will lead a mother and her child to select some particular level of aspiration for the child, it is also worthwhile to contrast the educational aspirations of different types of children and mothers in order to specify the conditions under which their plans are concordant or discordant. The research problem is simplified by using data obtained at one point in time to contrast the degree of parent-child agreement of aspirations at different points in the social structure.

Position in the social structure can be denoted by a variety of characteristics such as race, sex, age, parental educational attainment, occupation of household head, family income, type of school attended and type of community in which the family resides. The combination of a large number of characteristics in defining structural position presents several kinds of theoretical and methodological problems as well as the general problem of reporting a complicated analysis. The strategy pursued in the present study is to force simplification on a complex series of occurances by grouping variables and characteristics in several ways. The control characteristics and variables are grouped according to whether they pertain to the individual subject, his family, or his larger milieu. Finally, a second grouping of these characteristics is employed so as to distinguish between those characteristics which are more strictly economic in quality as opposed to those characteristics which are assumed to be related to the values and subcultural orientations of the subject. A gross theoretical consideration of this analysis shall be concerned with whether economic characteristics or subcultural characteristics carry more weight in the prediction of correspondence between mother's educational expectations for the subject and the subject's own educational plans. A review of the characteristics to be included in the analysis is given in the next section of this report.

The Characteristics to be Controlled

Race - Race figures as the major control variable in this report for several reasons. The results of previous studies are mixed with regard to differences in educational aspirations of Negroes and whites. Some studies find that Negroes have lower levels of educational aspiration than whites. (Folger and Nam, 1967, p. 58; Coleman and Campbell, 1966, p. 279) Other studies, particularly those that include controls for socioeconomic level, find little difference between Negroes and whites regarding educational plans. (Stephensen, 1957; Holloway and Berreman, 1959; Smith and Abramson, 1962; Gist and Bennett, 1963; Antonovsky, 1967) The failure to observe a race difference in educational plans is somewhat incongruous with the frequently observed differences between Negroes and whites in educational achievement and attainment. Negroes lag whites in reading skill by one or two grade levels and Negroes are less likely to complete high school and less likely to attend college than whites. (Reiss and Rhodes, 1959; Coleman and Campbell, 1966; Folger and Nam, 1967) The disadvantage of Negroes in housing, health, school facilities, quality of instruction, etc. can easily be used to explain the lower levels of skill and attainment but these factors do not seem to depress levels of aspiration. Negro parents also seem to maintain a high level of educational aspiration for their children according to previous research. (Bell, 1965; Gittell, 1965) Given the fact of racial discrimination in the job market and the relatively lower wages that Negroes receive as compared with whites within categories of occupation or educational attainment, it is something of a curiosity that a large segment of the Negro community maintains a high level of aspiration for its children.

The present investigation is concerned with comparing the parental influence on educational aspirations in Negro and white families.

Comparisons are limited to Negroes versus other races which are hereafter referred to as whites since less than one percent of the sample is Oriental, Indian, etc. Furthermore, Orientals are the largest group in the nonwhite, non-Negro residual and their educational aspirations, intelligence test scores, socioeconomic levels are identical to those of whites. (Coleman and Campbell, 1966)

There is little difference between college plans of Negroes and whites in this study. (See Tables 4 and 8.) This observation is consistent with the findings of other studies (See previous footnote). Nevertheless, race is maintained as a control variable because previous investigation lead one to suspect that there may be interaction between race and plans and various indicators of socioeconomic status. The fact that there is little difference between Negroes and others regarding educational ambition is curious, given the considerable differences between Negroes and whites in educational achievement and educational attainment. Since residential segregation and occupational discrimination generally confine Negroes to the poorer sections of the city which means that they must attend the slum school which receive the lowest capital outlay and operating budgets, it would not be surprising to find that Negro students have low levels of educational aspiration. Considering the fact of occupational discrimination and Negro disadvantage with regard to wages in occupations requiring higher levels of educational attainment, it is surprising that Negroes would continue to maintain high levels of aspiration.

Sex - It is expected that girls will be less likely to plan for college than boys. Previous research supports the notion that sex-role expectations for many girls are such that their orientations are more in the direction of making a successful marriage than preparing for professional occupations by attending college. (Berdie, 1954, p. 59; Bordua, 1960) Furthermore, parental attitudes differ according to the sex of the child; many parents perceive that college is more beneficial for boys than for girls. (Sewell and Shah, 1968A)

There is also some evidence that there is interaction between socioeconomic status and sex on college plans. (Sewell and Shah, 1968; Werts, 1968) There is no difference in proportion planning to go to college by sex in high socioeconomic status families. The question of whether or not a family can send its girls to college becomes more important as resources become more limited. However, there are other complications affecting the sex ratios of college attenders. (Bell, 1965; Sewell and Armer, 1966) Among Negroes, girls are more likely to attend college than boys. Also, the sex ratio of college attenders varies from state to state suggesting that there are either differences in availability of college education or subcultural differences between city and country or across regions regarding the necessity of higher education for women.

There are other incongruities with regard to sex, academic ability, aspiration and achievement. Boys and girls tend to achieve about the same levels of skill as measured by standardized achievement tests. (Reiss and Rhodes, 1959) Yet, boys, who in aggregate are more likely to drop out of high school before graduation and who are more likely to be age-grade retarded, are also more likely in aggregate, to plan for college. Girls, on the other hand place a higher value on the educational experience, (Reiss and Rhodes, 1959) they are more conforming in the classroom, and more motivated to do well in school, and they make higher marks than boys, and they are less likely to leave high school. (Nam, Rhodes, and Herriott, 1966) These anomalous observations can be fitted into some sort of pattern if it is remembered that girls are generally more accepting of adult control, that educational achievement confers a higher status for girls than for boys in the adolescent subculture, and that alternative forms of endeavor (athletics, part-time employment) are less accesible to girls than boys. (Reiss and Rhodes, 1959; Coleman, 1962) It is also possible that boys will be observed to have higher levels of aspiration in surveys of high school enrollees since there has already been selection by sex in school dropouts. More boys drop out of school, particularly the poor students or the poorly motivated students. Hence the boys that choose to remain in school, particularly after age sixteen, are the boys that are more likely to plan for college.

There is another explanation for the higher level of aspiration among boys which is more consistent with the general focus of this report. The boys and girls themselves may be aware of parental views that college is more beneficial for boys than for girls. Hence, in families with low socioeconomic status or those having limited resources, the sex differential in college plans may represent accomodation of girls to the fact that only the boys in the family will be able to attend college. There may be additional considerations which families make in regard to which children will go to college so that bright girls may be educated rather than dull boys. Given the interaction of sex with socioeconomic status on college plans which has been observed in other studies it may be worthwhile to look for interaction between sex and indices of socioeconomic status or sex and intelligence in this study. (Sewell and Shah, 1968)

Age - There are several reasons to expect some relationship between age of subject and either his own college plans or his parents' educational expectations for him. Review of studies which involve comparisons of college plans across age groups suggests that plans tend to become more realistic as youths approach the point at which the decision must be made. (Folger and Nam, 1967, p. 58) Several studies of educational aspiration have been confined to high school seniors for this reason. (Cowhig and Nam, 1963; Coleman and Campbell, 1966) However, it can be argued that youths who intend to go to college must make related decisions considerably in advance of high school graduation with regard to choice of curriculum and, indeed, with regard to educational achievement. (See Chapter V.)

To the extent that attending college is emphasized by the school and the broader culture as desirable or as an ideal, one might expect younger children to conform to the cultural expectation as indicating intent to go to college. Then, as the child becomes more aware of his own abilities, his family's resources, or as other alternatives become attractive, he may be less likely to plan for college unless he thinks he has the ability and that it will be financially possible for him to attend. Age should be less of a factor for those youths in favorable economic circumstances, particularly those in a subcultural setting where college attendance is a normal expectation. Birth order, an age related factor has some relevance for plans. (Elder, 1963, p. 39) Both the plans of the youths and their parents should be affected by the respondents' age proximity to making educational plans a reality. However, it seems likely that parents will be more sensitive to financial problems and other obstacles to college attendance than their children.

There is also the problem of selectivity as it affects the relationship between college plans and age among enrollees. That is, as age advances the less able student and the poorly motivated student are more likely to drop out, particularly after age sixteen. To the extent that this sort of selectivity operates, one might expect to observe a direct relationship between age and percent with college plans. Whether the decline of fantasy with regard to college plans is sufficient to more than cancel out dropout selectivity is a matter worthy of investigation. Still another sort of selectivity operates with regard to eighteen-year-olds, but particularly with regard to nineteen-year-olds, still enrolled in secondary school. That is, the nineteen-year-olds in the sample represent a group of students who are age-grade retarded and yet willing to remain in school. The aspiration level of this group is lower than that of the younger students in that they are less likely to aspire for college.

All other things being equal, one would expect to find that parents' influence on youths is greatest at the youngest ages and less as age advances. Again, there could be some selectivity operating on the older students so that subjects who are least influenced by their parents are also most likely to drop out of high school before graduation. There seems to be sufficient justification for including age as a control variable in the analysis.

Intelligence Test Score - Students' intelligence has frequently been used as a predictor of educational aspiration. (Uzell, 1961; Cowhig and Nam, 1963; Herriott, 1963; Cohen, 1965; Pavalko and Bishop, 1966; Sewell and Shah, 1967; Sewell and Shah, 1968A) Although the positive relationship between level of aspiration and intelligence is observed in all studies, the relationship is by no means perfect. (Ibid.) Ralph Turner has remarked that the relationship between college plans, sex, socioeconomic status, school context, and intelligence is by no means a simple one. (Turner, 1964; See also Sewell, 1964) Intelligence has different predictive values for college plans in the case of boys and the case of girls. Intelligence is a better predictor of boys' plans than of girls' plans when zero order relationships are considered. However, intelligence is a better predictor of boys' plans than of girls' plans when socioeconomic status and school context are added to the regression analysis. Thus, although intelligence is as good a predictor of college plans as any of the variables that have been employed in such studies, its relationship to college plans varies for different types of students in different social contexts. (Michael, 1961; Sewell, 1964; Sewell and Armer, 1966) It seems obvious that the student's intelligence could affect the student's plan and the parent's plan in different ways. For example, the youth may be unrealistic and plan for college when he doesn't have the ability to be admitted to college or to successfully do college work. His mother may be aware of his low level of ability and scale down her ambitions for him accordingly. Conversely, the parent may maintain a high level of aspiration for the child even though the child knows, as a result of his day-to-day struggle in secondary school, that he will be unable to do college work. The situation may be different for the bright student from a home with limited resources. The student knows that he has the ability to do well in college and plans to attend. His mother, on the other hand, knows that even though he is bright and could do well in college, the family will not have enough money to help him get through college. In families with somewhat better resources, there may be a difference by the sex of the child so that the mother knows that the family can afford to send its bright boy to college but not its bright girl. At the upper levels of socioeconomic status, the availability of resources may override all other considerations so that both mother and child plan for the child to attend college, regardless of intellectual ability. These remarks may be sufficient to indicate that the relationship between intelligence test score and college plans is so well established that intelligence must be considered as a control variable in the analysis.

Age-grade Retardation - Not all pupils in a school system advance one grade each year. Age-grade (or scholastic) retardation refers to students who lag behind their age peers in progress through school. Although age-grade retardation in progress through school could be due to prolonged illness, frequent changes of residence by the family or other non-academic causes, it is obvious that there is a relationship between ability and scholastic retardation. Yet there are reasons for including age-grade retardation as well as intelligence in the analysis.

First, age-grade retardation could be used as a substitute for standardized test scores as an indicator of ability. Intelligence test scores were unavailable for about two out of five cases in this study, whereas age-grade retardation can be computed for all cases since age and grade in school were obtained for all cases in the sample. It must be acknowledged that it is an inadequate substitute for measured intelligence since it is an imperfect measure of ability for reasons noted above and because it only differentiates between those who follow the regular progress of promotion in the school system and those who are behind in their progress. (The obverse state of being age-grade advanced is very rare in this sample.) However, it would seem that imperfect indication of the subject's ability is preferable to no information concerning subject's ability.

Second, age-grade retardation may have some predictive power with regard to subject's plans which is independent of intelligence test score. Age-grade retardation as a matter of record and treatment by the school (as opposed to some other policy such as ability tracking, social promotion, etc.) may have consequences for the individual's conception of himself as a student and for his mother's conception of him as a student.

Whether or not age-grade retardation has a greater effect on mother's educational expectation than it has on the youth's own educational plans is a matter to be empirically determined. The extent to which it is more closely related to the expectations of one versus the plans of the other (or vice versa) should modify the basic relationship.

Subject's Attitude Toward Getting a College Education as a Success Means - At least part of the effect that the family, the peer group, or other large groups may have on the educational aspiration of a youth must result from that group's influence on the youth's definition of getting an education as being worthwhile and rewarding. If the youth perceives that education is necessary for living a successful life or for attaining economic security or affluence, then he may choose to keep on attending school as long as he can. It seems reasonable to assume that those youths who think that getting a college education is the best way to get ahead in life will also be more likely to plan to attend college. There is no reason to expect complete correspondence between placing a high value on attending college as a success means and college plans since some youths may recognize that college may be the best way for them to succeed or that college brings rewards and yet decide that college is not for them. The weak student or the student from a disadvantaged home may place a high value on education and yet be unable to attend college. Reiss and Rhodes found that Negro girls with low intelligence test scores (a group very unlikely to attend college) place a higher value on school than bright, white males from high socioeconomic level families. (Reiss and Rhodes, 1959)

There is, of course, a difference by socioeconomic status in the proportion of youths and in the proportion of parents who place a high value on education as a success means. (See Appendix C.) Furthermore, there is a sex difference in value placed on education as a success means. Whether or not there is a relationship between educational plans and value of education when race, socioeconomic status, or other factors are controlled will be investigated at a later point in the report. Subject's attitude alone and also mother's attitude by subject's attitudes regarding college education are included in the analysis.

Characteristics of Mother and Family

Mother's Educational Attainment - A consistent positive relationship between educational attainment of parents' and youths' educational aspirations has been observed in a number of different studies using subjects in various grade levels in various social settings. (Berdie, 1954; Cutright, 1960; Cohen, 1965; McDill and Coleman, 1965; Nam, 1965; Sewell and Shah, 1968B) These observations are consistent with those which report a positive relationship between educational attainment of parent and parents' educational aspirations for their children. (David, et al., 1961) Attention is focused on educational attainment of the mother only in the main part of present study for methodological considerations which will be set forth later in the report. There is a high correlation between mother's education and father's education. (See Appendix E for discussion of differential effects of mother's and father's educational attainment.)

Mother's educational attainment could be expected to affect subject's educational aspiration in several ways. Higher educational attainment of the mother may be viewed as an indicator of higher socioeconomic status which is known to be related to college plans. (See studies by Sewell and associates cited above.) Mother's educational attainment may also reflect a family tradition of attending or not attending college. (This might be particularly important with regard to girl's plans for attending college.) Also, mothers with advanced levels of education may be more effective throughout the socialization period in facilitating their child's educational achievement. Again, the relationship between plans and parent's education is not a simple one. Sewell and Shaw note that whether or not a parent's education has more or less effect on educational plans depends upon the child's sex and I.Q. (Sewell and Shaw, 1968B) There is reason to suspect that it also depends upon race; that is, few Negro parents have been able to reach higher levels of educational attainment and yet it is likely that some of them want a college education for their children. In fact, Berdie reports that although there is a marked tendency for parents with college educations to want college educations for their children, the majority of the pupils planning for college come from homes where the parents were not college graduates. (Berdie, 1954) The present investigation makes some attempt to specify the relationship between youth's plans, mother's expectation and educational attainment and race and sex of child.

Farm Background - Since investigations by Blau and Duncan (1967, p. 287) have highlighted the importance of farm background for educational attainment and occupational choice, it should be useful to consider farm background of mother as a condition which may affect the relationship between mother's educational expectation for her child and the child's own plans. Both mother's farm residence when she was a child and her recent farm residence are considered in the present study. It is expected that mothers from farm backgrounds will have lower levels of educational aspiration for their children and that children of these mothers will be less likely to plan for college. There are many studies which have documented the lower levels of educational aspiration which prevail among rural youth as opposed to urban youth. (Elder, 1963) The expectation in the present study is that past rural influence on the mother's orientations will be reflected in her expectations for her children and in the plans of the children themselves. It is further anticipated that farm background will have a greater influence for some types of families than for others. It is anticipated that rural-to-urban migrants will have lower educational expectations for their children than those persons who have continually resided in the city, all other factors being held constant. Likewise, their children are expected to be less likely to plan to attend college. If the children of these mothers are more influenced by urban living than their mothers, this condition could serve to decrease the relationship between educational aspirations of the children and their mothers.

Mother's Religion - An analysis of data from the sample shows that plans of subject are related to mother's religion. (See Appendix D.) Teenagers with Jewish mothers are most likely to plan to attend college; those connected with the largest Protestant denominations (except Baptists) and the Roman Catholic Church are next most likely to plan for college. Teenagers whose mothers identify with many of the smaller Protestant denominations or the Baptist churches are least likely to plan for college. Adjustment for socioeconomic level and other characteristics serves to reduce differences by religion but the differences still persist. These findings are consistent with those of other studies which report differences in aspiration by type of Protestant church or sect but differ from the findings of earlier studies in which Judaism or Catholicism is an index of ethnicity as well as religious orientation. (Stroatbeck, 1958; Rosen, 1959) David McClelland and others have set forth some possible connections between religious orientation and achievement motivation. (McClelland _et al_., 1961) They first rejected a simplified explanation that the Protestant reformation would have produced a family type which stressed high standards of performance and responded positively and warmly to the accomplishment of the children. They note that some branches of Protestantism are notably authoritarian and restrictive which would have produced low levels of achievement. Their survey of the literature suggests that while traditional Catholicism might produce low achievement motivation because of its authoritarian, restrictive character the modern Catholic family would not. The modern Catholic family in American society is likely to be upwardly mobile from immigrant origins. They argue that both Protestants and Catholics share a general cultural emphasis on achievement. They argue that any differences in achievement motivation by religious orientation may be artifacts of differential socioeconomic compositions of the groups being compared. These authors abandon this position however, when they consider the high levels of achievement motivation among Jews. They note that even Jews in the low socioeconomic level have high achievement motivation. This finding is explained by qualities of the Jewish family which stresse perfection in conduct and high self reliance while providing strong maternal support and absence of authoritarianism on the part of the Jewish father. If these assertions are correct, one would expect a high degree of correspondence between the plans and expectations of Jewish youth and their mothers since both should evidence a desire for attainment of as much education as possible.

Although there is no clear precedent for evaluating the effect of mother's (and implicitly student's) religion on the correspondence between subject's plans and mother's expectation, it seems possible that there could be some effect. It is likely that there would be more correspondence between youth's plans and mother's expectations in those situations in which religious orientations of both parent and youth are consistent with societal values regarding education.

Mother's and Subject's Valuation of Education as a Success Means - The attitudes of the subject towards getting a college education as a means towards achieving various goals, such as getting the "right" job, reaching a desired level of income, or a more general goal of being a success in life should have some relationship with his educational plans. Similarly, the mother's evaluation of obtaining a college education as a means to becoming a success in life should have some bearing on the educational aspirations that she holds for her child. (Berdie, 1954, p. 77) Although it seems reasonable to assume that the value orientations of individuals may vary with race, ethnicity, religious orientations, and indicators of socioeconomic status, it seems worthwhile to obtain some direct measure of the individual's subscription to an educational value rather than confining the analysis to other measures which are presumably related to it. The extent to which the correspondence between aspirations of mother and child is related to correspondence in their value of education as a success means is an appropriate object of empirical investigation.

If one is willing to take the position that the relationship between mother's educational expectations for her child and the child's educational plans is partially a consequence of shared values, then it follows that there will be the greatest correspondence between mother's and child's educational plans where there is the greatest correspondence between mother's and subject's evaluation of obtaining a college education as a means to being a success in life. It is even conceivable that a mother with a high level of educational aspiration for her child might facilitate the realization of her plans by first imparting a high valuation of education to her child. The process of transmitting values from parent to child or by which mother and child come to share the same values deserves to have more study that has been evident up to the present time. However, this task lies beyond the scope of the present study. All that can be done is to show that relationship exists between correspondence of mother's and child's values and correspondence of their educational aspirations.

Occupation - There are many studies which have used father's occupation as an indication of socioeconomic status and found that it correlates positively with the level of educational aspiration. (Berdie, 1954, pp. 59-61; Cutright, 1960; Grigg and Middleton, 1960; Pavalko and Bishop, 1966) Children from white-collar, and particularly professional, occupational levels are more likely to plan for college than those from families where the main breadwinner has a blue-collar, manual or farm occupation. Sewell and Shaw and Pavalko and Bishop have shown that occupational level exerts an effect on college plans that is independent of I.Q. Although this difference could be attributed entirely to the difference in income which various occupations imply, there is reason to believe that occupational differentials also hinge on other factors. Some white-collar occupational roles may lead their incumbents (and secondarily the other members of the family) to place greater value on formal education as a means for acquiring both the social and the vocational skills which are necessary for the more rewarding occupations. Parents in the best-paying blue-collar jobs, on the other hand may feel that it is possible to achieve financial security and a relatively high standard of living with no more than a high school education. Parents in white-collar occupations may be more aware of the necessity for early preparation for eventual college attendance. They may provide more books, magazines, extra-curricular education and other kinds of activity which gives their children an advantage in the primary grades and on through secondary school. (Byons and Henmon, 1936) These actions may, in turn, smooth the passage of their children through the educational process so that the children are more likely to define the educational experience as worthwhile. Also, Suzanne Keller and Marisa Zavallani have pointed out that the amount of ambition required by lower class young people to reach the same goal as middle-class young people must be greater because they have a relatively greater distance to go. (1964) They state that it is not particularly ambitious of middle-class children to plan to go to college. Also, parents in the white-collar occupations are more likely to have at their command the kinds of knowledge that enables them to help the children with homework and/or to achieve acceptance by both peers and teachers. (Hollingshead, 1949; Havighurst, et al., 1962; Clark, 1963; Deutsch, 1963) The white-collar parent, confident of social acceptance, is more likely to seek conferences with the teacher than the blue-collar parent. (Sexton, 1961, p. 153)

To the extent that these factors produce higher achievement and that higher achievement either preceeds or accompanies higher ambition, occupational level of family should be related to college plans.

Family Income - There is the obvious direct connection between the youth's plan to attend college or not and the family's ability to pay for college. The relation between college plans of youths and parents, family income, and parent's plans to pay for college is explained in Appendix B of this report. The results of that analysis indicate that there are many families at differing levels of income in which the youths intend to go to college and their parents expect that they will go and yet the family has made no provision to help pay the cost of attending college. Hence, it is possible to have college plans somewhat independent of income. (Ramsøy, 1962)

There are, however, numerous studies which find a positive relationship between educational aspirations and family income. (Berdie, 1954, p. 59; Educational Policies Commission, 1950; David, *et al.*, 1961; Sexton, 1961) The theoretical link between aspiration and income goes beyond the simple fact of ability to pay for college noted above. To the extent that income is related to educational attainment and occupation of parents, the same arguments advance to account for relations between plans and these also apply to plans and income. If high income denotes middle or upper socioeconomic level, then the favorable value orientations to education, and college attendance in particular, should operate to produce higher levels of aspiration in high-income families. Therefore, some means of multivariate analysis is needed to test for independent effects of income.

The effect of living in families at the lower levels of income on plans goes beyond the obvious connections noted above, particularly for parents and children who are really poverty stricken. Patricia Sexton (among others) has noted the "hidden" costs of attending "free" public high schools. (1961, pp. 203-206) In addition to the costs of workbooks, writing materials, locker fees, lab fees, etc., there is the cost of gym clothing, admission to extra-curricular activities and other in-school activities. There are also the out-of-school costs of transportation, dating, entertaining, etc. which the low income (or poverty) level family cannot provide. The economically disadvantaged youth whose family is unable to provide him with the minimum accessories for school attendance and who is excluded from the school's social life, is more likely to leave high school before graduation. The idea of attending college is more of a fantasy than a realistic aspiration for children in these circumstances. Sexton and others have also noted the restricted life experience of the slum child and his parents. (Sexton, 1961, p. 144; Passow, 1963)

The slum child is afraid to leave his yard or immediate neighborgood to take advantage of such free culturally-enriching opportunities as the city may provide. (Sexton, 1961, p. 144) He may have less access to counselors and the high school counselors may decide, a priori, to dissuade him from attending college, knowing his family's lack of resources and his ability which has suffered as a result of past deprivations. (Sexton, 1961, p. 153) These and other considerations lead one to expect a positive relationship between income and the aspirations of youths and their mothers.

Educational Aspiration of Subject's Best Friend - The influence of peers' or best friend's educational aspirations on an individual subject's educational aspiration has long been the object of both theoretical speculation and empirical investigation. (See Haller and Butterworth, 1960, p. 289 for citations to earlier literature and Alexander and Campbell, 1964, for a more elaborate theoretical rationale.) Duncan, Haller, and Portes have assessed the relationship between subject's and best friend's aspirations within the framework of a more elaborate scheme which relates socioeconomic indicators and educational and occupational aspirations. (1968) Rhodes found close correspondence between the educational plans of a subject and educational plans of his two "best friends" as named by the subject. (Unpublished paper based on data from the Nashville Study; See Reiss and Rhodes, 1959.)

Any correspondence between subject's educational plans and those of his best friend could be partially a consequence of shared attitudes toward educational achievement and educational goals which develop out of interaction in the peer group. (Haller and Butterworth, 1960, p. 291) Although there has been some speculation that agreement between subject's and best friend's aspirations is simply a reflection of a more general school context effect, the results of several studies suggest that the former is somewhat independent of the latter. (Duncan, Haller, and Portes, 1968, p. 120)

There is disagreement between the findings of several studies concerned with gauging the relative importance of parental influence and peer influence on subject's educational plans. Alexander and Campbell found that the effects of parents' educational attainment and best friend's plans were additive with regard to predicting subject's plans. (1964) Simpson found that parents have more influence on college plans than peers. (1962) McDill and Coleman, on the other hand, found that the effects of parental characteristics on student's aspirations diminish across grade levels of high school while

> the influence of peer aspirations is greater at the senior level than at the freshman level until peer influence is only slightly less important than the influence of parental aspirations for the subject on subject's plans. (1965, p. 122)

The cross-sectional design of this study prevents any specification of the causal sequence which might obtain between mother's expectations for her child, best friend's aspirations, and subject's aspirations. Although it seems reasonable to assume that mother's expectation could antedate both subject's plans and peers' plans, there is no way to be certain of the direction in which influence flows (e.g., does the mother manipulate the subject's choice of friends so as to maximize the chances that her desires for the child's future will be realized? Or does she passively adjust her expectations in terms of what the subject and his best friend plan to do?)

Sidestepping the issue concerning the direction of causation, it still seems likely that there would be greater correspondence between the plans of the subject and his mother's expectation for him if there is agreement between the subject, the mother, and the best friend with regard to college expectations or plans. Conversely, one might expect to find less correspondence between subject's plans and mother's expectations when the mother and the best friend have conflicting levels of aspiration.

School Context or Climate - There has been considerable controversy among sociologists concerning whether or not the school as a social group exerts any effect on the aspirations of its members independent of the individual and family characteristics which the individual student brings to the school situation. Campbell and Alexander raise the question as to whether the values of the total collectivity constitute behaviorally relevant expectations toward which the individual orients himself. (1965, p. 288) They question whether there exists a school-wide value system upon which the individual bases his behavior apart from influences of significant others.

Sewell and Armer, in a study of Wisconsin high school students, crossclassified students by family socioeconomic (parent education and income)level and socioeconomic (percent white-collar in school district) level and college plans. (1966, p. 162) They conclude that socioeconomic composition of school adds little to variance in college plans explained by individual's sex, and I.Q. and family socioeconomic level. Turner, Michael, and Boyle raise various objections to the procedure and conclusions of Sewell and Armer. (1966) They question the analytical procedure of entering school context last in the regression of intelligence and family socioeconomic level on college plans because context may share effect on college plans with these variables. They also note that context may exert various effects on college plans according to size of community, sex of respondent, and other factors. McDill, Meyers, and Rigsby, in a more elaborate analysis of contextual effects on academic achievement on standardized tests, find that the context effect on achievement tends to disappear when characteristics of the individual are controlled. (1967) However, they report that when both socioeconomic context and individual characteristics of the student are controlled, then other characteristics of school environment have significant effects on students' performances.

The data for the present study are not adequate to resolve the issues which this controversy has raised. There is no adequate measure or indicator of the quality of the schools regarding either achievement or performance. Some measures of the particular value climates which obtain in the various schools attended by the subjects would be particularly helpful. In the absence of such information, there is recourse to two indicators of behavior relevent to levels of educational attainment. These are confined to schools having a 12th grade. One is the principal's estimate of the percent of high school seniors who went on to enroll in a two-year or a four-year college. The other measure is the principal's estimate of the percent of tenth graders attending his school in 1962 who dropped out of school before the graduation of their class in 1965.

Although these measures could be viewed as indirect indicators of the value climates that exist in these schools, a more direct interpretation could be that these rates reveal the presence or absence of behavioral models in these schools for going on to college, on the one hand, or not finishing high school on the other hand. The expectation would be that both students and their mothers would be more likely to opt for attending college if their environment is one in which a large portion of the student body attends college. Conversely, fewer mothers and students would have college aspirations in a milieu where a substantial proportion of students do not even finish high school. Although both the college-going rate and the dropout rate would be expected to be related to the socioeconomic composition of the school, it is possible that these characteristics of the school would be more directly related to levels of educational aspiration than socioeconomic composition. Since there is no adequate measure of socio-economic composition of the school, it is impossible to empirically test this assertion.

Still another feature of school composition is included in the analysis. This is the percent of the student body that is Negro according to the principal's estimate. Expectations regarding the relationships between percent Negro in the school and mother's and subject's aspirations are equivocal. That is, to the extent that schools with large proportions of Negro students are also slum schools, one might expect lower levels of aspiration for both mothers and children. (Clark, 1963) On the other hand, if the subculture of the Negro community is characterized by high valuation of educational attainment and high educational aspiration, then both mothers and children in preponderantly Negro schools should share high levels of educational aspiration. (See Reiss and Rhodes, 1959 and also Appendix B) In either case, one might expect closer correspondence between aspirations of mothers and children in preponderantly Negro schools, either because aspirations are uniformly low in the ghetto (Clark) or because they are uniformly high. (Reiss and Rhodes)

Characteristics of Community: Region, Residence in the Central City, or Ring of a Metropolitan Area, or Residence Outside a Metropolitan Area.

The results of the larger study by Nam, Rhodes, and Herriott which preceded the present investigation revealed that educational plans of youth vary with place of residence. (1966) Pupils in the West have the highest college-plans rate (71%); those in the North the next highest (55%); and those in the South had the lowest rate (52%). These rates are somewhat higher than those reported in the present study since cases were unweighted in the earlier study and also the non-college planners did not include the small (2) percent with no information on plans. Pupils living in metropolitan areas but outside of the legal limits of the central cities of the North had a higher college-plans rate than those living in the central cities which was in turn higher than the rate for those residing outside of metropolitan areas. In the South and West, it was the pupils in the central cities who had the highest college-plans rates, those living in the metropolitan area outside the central city had the next highest rates and those living outside of metropolitan areas had the lowest rates. The finding that plans are lower in more rural areas is consistent with those of other studies of the relationship between community size and educational aspiration. (Elder, 1963; Sewell, 1964; Boyle, 1966)

That college-plans rates in the North are lower in central cities than in the "ring" or suburban area around the central city is in agreement with the notion that lower-status subjects and their schools are concentrated in the slums of the central cities so that the lower levels of aspiration observed for the central cities reflects residential segregation by race and socioeconomic status. Failure to observe the same pattern in the South and West may have been a consequence of historical differences either in the patterns of residential segregation or in the definition of central city boundaries so that central cities in these areas are more inclusive of suburban areas than the more circumscribed central cities of the North, particularly the Northeast. The more extended boundaries of the metropolitan rings relative to the central cities in the South and West may include more rural inhabitants, which would serve to depress the average rate of college planning in the ring. Investigation of the reasons for this anomaly is beyond the scope of the present study. It seems sufficient to note that the place of residence has an effect on college plans which could serve to qualify the relationship between plans of subject and expectations of mother. Without going into elaborate speculation as to why this might be so, there are several factors worth mentioning. It may be that the presence of extensive low-cost junior college systems in the largest Western state, California, could serve to raise educational expectations of mothers and college plans of their children. Greater accessibility of a variety of higher-educational facilities in metropolitan areas could add to the often-reported advantage in educational aspiration and attainment of urban residents over rural residents.

CHAPTER II: METHOD

This description of the method and procedures used will be presented in three parts. First, there will be a description of the sample selected by the Current Population Survey with special attention to possible sources of error and the implications of the sample design for the statistical significance of the findings. Next the measures of educational aspiration and the other characteristics are described. The third part of the methods chapter is concerned with depicting the measure of association and the technique of multivariate analysis used in this report. Perhaps it is not necessary to remark that this is an ex-post-facto study which involves re-analysis of data gathered for a previous survey of inequalities in educational opportunities because of race and religion. (Nam, Rhodes, and Herriott, 1966) Therefore, the features of the design of this study are fixed by that of the parent study except for the choice among the predictive characteristics as they are measured in the original study and the choice of the means of analysis. However, the following discussion considers the relevance of design features of the original study for interpreting the results of the present study.

The Sample

The Representativeness of the Sample - The data were obtained through the current Population Survey (CPS) of the U. S. Bureau of the Census. This is a sample survey conducted monthly by the Bureau to obtain estimates of employment, unemployment and other characteristics of the general labor force and of the population as a whole. The sample is an area probability sample which selects some 357 areas comprising 701 counties and independent cities in each of the 50 states and the District of Columbia. About 40,000 housing units are visited each month and about 5,000 of these are found to be vacant or otherwise not to be enumerated. About 1,500 of the remaining 35,000 occupied units are visited but interviews are not obtained because the occupants are not at home, refusals, etc., making a nonresponse rate of about 4 percent for occupied units. A complex rotation design is employed to improve the survey statistics. Each monthly sample has eight equal portions, only one of which is brand new. The segments of each portion are in the sample for four months, then out eight months, then in again for four months. An elaborate weighting procedure is employed which has three main features. An adjustment is made for color-residence groups for white and nonwhite categories by urban, rural nonfarm and rural farm residence. Also, a ratio correction is made for groups described by age, color, and sex. Finally the composite estimate utilizes information not only for the current month but also data from past months; depending on correlations between overlapping portions of data collected for the various months. The effect of these corrections is to reduce the variance of estimates and to partially correct for nonresponse biases. Tables of variances are included as part of the reports of the current Population Survey and tables for the October 1965 CPS Survey of School Enrollment are reproduced later in this discussion.

The data used in this study are either weighted frequencies or percentages and other statistics based on these weighted frequencies which represent estimates of the "true" number of cases in subgroups of the total population. The accuracy of the measures and statistics used in this study must ultimately rest on the accuracy of these estimates. The accuracy of the estimates, in turn, rests upon the degree to which the sample cases are representative of the total population.

The total error encountered in sampling surveys can be categorized into sampling and nonsampling error. Sampling error is concerned with whether or not the selection procedure resulted in having a sample which is representative of the total population. Even if there were no other sources of bias, it is possible to draw an atypical sample by use of a random mechanical method of selection and a complete sampling frame. The likelihood of this occurring can be estimated with considerable precision. An extended discussion regarding the degree of sampling error in the CPS is available. (U.S.B.C., 1963, pp. 50-70, 90-91) Another source of sampling error is using an incomplete frame or list in the selection of the list. The CPS intentionally excludes military and institutional populations and doubtlessly excludes other and much smaller populations by reason of sampling design. Nonsampling errors include the cumulative effect of errors in the field and errors in coding and processing of interviews or questionnaire forms. Still other nonsampling errors include those of measurement; i.e., do the questions used in the survey elicit the desired information from respondents, etc. The details of measurement are covered in the second section of this chapter.

The coverage of the CPS has been described at length. (U.S.B.C., 1963) However, one should keep in mind that the CPS is designed to accurately reflect monthly changes in U. S. unemployment. The accurate estimate of the population enrolled in school is a secondary task rather than the primary goal of the survey. However, there are different weights computed for the enrollment estimates. (Current Population Survey, 1967) There should be no bias in the weighted frequencies reported in the October 1965 CPS according to age, race or sex since the individual cases in that survey are weighted-up to reflect the age-race-sex distributions of the 1960 Census projected forward to 1965. (Current Population Survey, 1967) The reader must be reminded, however, that the data used in this report represents a subset of a subset of all persons in the October, 1965 Current Population Survey of School Enrollment. (1967) The data for that report include all persons who were described by "any responsible adult" in the household during the regular CPS interview as being enrolled in school less certain cases. The study excludes some 33 cases of 14-19-year-old persons who were identified as being enrolled in regular school on the CPS-1 household interview form, but who were later identified as not enrolled in school according to the leave-behind form (CPS-552) for nonenrollees and/or the principal of the school in which the respondent was last enrolled (CPS-555). That is, if the person was identified as being enrolled in school by the original respondent (any responsible adult in the household) and the person himself indicated that he was not enrolled in school, or if his principal of the last school in which he was enrolled indicated that he was not enrolled, then this case was excluded from the analysis. Twelve cases were excluded because it was impossible to locate the CPS-1 form and match it to the leave-behind forms and the principal's forms. One case was lost during the tape cleaning process when double punches, etc. were eliminated from the data tape.

The response rates to the original CPS household interview are very high, about 96 percent. Hence, items which will be subsequently identified as coming from the household interview (CPS-1), such as family income, occupation of household head, age, race, sex, educational attainment of mother, etc., have almost complete response. The response rate for the household "leave-behind" questionnaires is also very good (about 87 percent) but not as good as for the CPS household interviews. Almost 30 percent of the school principals failed to return forms CPS 554 and/or CPS 555. Unfortunately, the nonresponse on principals' forms was nonrandom; e.g., the central cities of the Chicago and Fort Worth SMSA's were among the school systems that failed to cooperate in the study. Also, the response rates were not particularly good for rural schools in the South. In addition to selection by region and/or size of place, there is also under-representation of certain populations. For example, surveys of this type which depend upon area probability samples have some difficulty obtaining information from highly mobile populations, such as young, unmarried males in the age group 17-20. Although the general coverage and methodology of the CPS is highly regarded, particularly with regard to its main function, it may be worthwhile to make some brief study of the biases which operate regarding some of the characteristics which are included in this study.

Any consideration of biases in a particular survey must rest upon making comparisons between the results of that survey and some standard. The standard in this case is the most recent decennial U. S. Census of Population. (U.S.B.C., School Enrollment, 1964) Although one would like to have a more current standard, the large sampling fraction of the 1960 Census of Population (.05 in the case of school enrollment by socioeconomic status indicators) seems to recommend its use. All the other nationwide surveys have much smaller sampling fractions (e.g., the Survey Research Center used 2,800 families in the study of poverty; Morgan, et al., 1962, p. 450).

Some indication of degree of departure from the standard is needed. The index of dissimilarity (Δ) is one such indicator. It is computed by getting the percentage distribution of the CPS sample across some characteristic (such as age), then obtaining the percentage distribution of the corresponding 1960-Census population across this same characteristic-using the same categories as those used for the CPS sample. The absolute within-category differences between the two percentage distributions are summed across all categories and divided by two. The result represents the minimum percentage of cases that would have to be shifted from one category to some other category in order to make the percentage distributions identical. For a numerical example take the age distributions for these parts of the October, 1965 CPS sample and the 1960 Census that are enrolled in school:

Age	% 1960 Census	% 1965 CPS	Absolute Difference
14	24.2	26.6	2.4
15	24.0	24.9	.9
16	22.8	23.9	1.1
17	19.6	19.0	.6
18	7.3	4.6	2.7
19	2.3	1.0	1.3
		Sum=	9.0÷2 = 4.5

Thus, $\Delta = 4.5$ means that only 4.5 percent of the cases in the 1965 CPS would have to be shifted to another age in order to make the percentage distribution identical to the one for 1960. The index of dissimilarity says nothing about the direction in which cases would have to be shifted in order to produce identical distributions. It is apparent for examination of the differences, however, that the CPS over-represents the younger ages and under-represents the older ages. All comparisons are made between 1960 Census distributions and 1965 CPS distributions. There are no projected 1965 totals for the age-grade-enrollment-sex-race subgroups which this study includes and it is beyond the limited resources of this study to make and validate such projections.

The CPS sample contains a slightly higher proportion of Negroes than the 1960 population of enrollees (12.3 percent Negroes versus 11 percent nonwhite). The difference is even greater than that shown above since the 1960 figures include nonwhite persons other than Negroes. The CPS sample has an over-representation of persons in the youngest age groups and an under-representation of persons in the older age groups as indicated above. Dissimilarity in age distributions of the census and CPS is greater for whites than for Negroes ($\Delta = 4.6$ versus $\Delta = 3.8$). Negroes are better represented than whites in the 18 and 19 year-old age categories. (U.S.B.C., School Enrollment, 1963)

The distribution according to sex is the same for the subset of enrollees used in this report as it is for the 1960 age-sex-enrollment data; 52 percent of the sample cases are male in this subset of the total CPS sample and in the 1960 sample. The comparability also holds for Negroes in the CPS subsample used in this report and the 1960 sample of enrolled nonwhites: 51 percent are male.

Because of the selectivity with regard to place of residence noted above, it was decided to make two types of comparisons. One of these involves comparison of the CPS subset data with the 1960 Census data. The other involves examination of the average weights assigned to Negroes and whites in various subgroups of cases described by region and metropolitan or nonmetropolitan residence. There are four regions defined by the U. S. Bureau of the Census. (*U. S. Summary*, 1964, p. S-2) The Northeast Region includes Pennsylvania, New Jersey and all states northeast of these two states. The North Central Region includes the dozen states north of Oklahoma, Arkansas, Kentrucky, and West Virginia. The West Region includes Montana, Wyoming, Colorado, New Mexico, and all states west of these. The South Region includes the remaining sixteen states beginning with Delaware at the northeast corner and going to Texas on the southwest corner. The distribution of CPS enrollees and 1960 Census enrollees are very similar. ($\underline{\Lambda} = 1.9$) The CPS has a slight under-representation of cases in the North Central and Southern Regions and a slight over-representation of cases in the West. These differences are consistent with projections of migration trends in the U. S. 1950 to 1960. (U.S.B.C., *U. S. Summary*, 1964, pp. S-13 and S-45) The U. S. Bureau of the Census did not publish enrollment data by race, age, and region other than for the South. (U.S.B.C., *School Enrollment*, 1964) The CPS selected a slightly higher percent of Negroes in the South than the 1960 Census (24.1 percent versus 22.9 percent).

The enrollment data by type of residence in the 1960 Census are for residence in the central cities or fringe of urbanized areas which are more restricted geographically than Standard Metropolitan Statistical Areas. (U.S.B.C., *U. S. Summary*, 1964, pp. xxvi-xxvii and xxxi-xxxii) The CPS data tape only included residence in the central city, or ring, or outside of a Standard Metropolitan Statistical Area with no breakdown according to urbanized area. However, the central cities of the urbanized areas and the Standard Metropolitan Statistical Areas are the same. The CPS selected slightly fewer enrollees living in central cities than the 1960 Census (26.8 percent versus 28.1 percent). Again, this difference is consistent with the 1950-1960 trend toward relatively slower growth of central city population. (U.S.B.C., U. S. Summary, 1964, p. S-29) It should be noted that the 1965 CPS selected a greater percentage of Negroes living in central cities than the 1960 Census did (22.5 percent versus

16.6 percent). Again, this reflects an extension of the 1950-1960 trend of increasing proportion of nonwhites living in central cities. (U.S.B.C., U. S. Summary, 1964, p. 143)

Crosstabulations of age by region and age by type of residence were compared for the 1965 CPS enrollees and the 1960 Census enrollees. There is a consistent bias by age that holds up across region and type of residence; i.e., the CPS under-represents the older age groups and over-represents the younger age groups. The differences by region or type of residence are not particularly large: Northeast, $\Delta = 4.2$; North Central, $\Delta = 5.9$; South-white, $\Delta = 4.2$; South-Negro, $\Delta = 4.8$; West $\Delta = 5.0$; Central Cities, $\Delta = 2.6$. It might be added that age distributions for Negroes in the CPS and non-whites in the 1960 Census of enrollment are quite similar, $\Delta = 3.8$ with same direction of bias.

There are no data which crosstabulates both region and type of residence by enrollment and race and age. Therefore, it was decided to examine the average weights which the CPS assigned to subgroups described by region and type of residence and race. See Table 1. Areas with the highest mean weights are assumed to be under-represented in the sample, while areas with the lowest mean weights are over-represented in the sample. The weights are, of course, partially dependent upon the place of cases in a multi-stage cluster sample and the features of selecting primary and ultimate sampling units are unknown with regard to particular geographical places. (This information was intentionally erased by the U. S. Bureau of the Census from the data tape in order to protect the anonymity of respondents.) However, the CPS design is intended to accurately represent the labor force by region and residence inside or outside of a Standard Metropolitan Statistical Area. (U.S.B.C., 1963, pp. 5, 6, 65)

Examination of Table 1 reveals that mean weights for whites in subgroups described by region and type of residence are relatively constant from one subgroup to another. There is some variation in the case of the mean weights for Negroes: Negroes in the rings (area between the boundaries of the central cities and the outside boundaries of the metropolitan areas) are under-represented in all regions but the Northeast. This is particularly apparent in the North Central rings. It should be noted that the number of Negroes in rings of Standard Metropolitan Statistical Areas and in the whole West region are quite small. Hence, these departures from

Table 1

MEAN WEIGHT (HUNDREDS) OF CASES BY RACE AND PLACE OF RESIDENCE

Place of Residence	White	Negro
Total (all enrolled cases)	18.9	19.9
Northeast Region		
Central city of Std. Metropolitan Stat. Area	17.9	20.8
Ring of Std. Metropolitan Stat. Area	18.4	16.2
Outside of Std. Metropolitan Stat. Area	18.3	22.1
North Central Region		
Central city of Std. Metropolitan Stat. Area	18.6	21.7
Ring of Std. Metropolitan Stat. Area	18.5	27.8
Outside of Std. Metropolitan Stat. Area	17.3	19.8
South Region		
Central city of Std. Metropolitan Stat. Area	18.9	20.1
Ring of Std. Metropolitan Stat. Area	18.8	22.8
Outside of Std. Metropolitan Stat. Area	18.4	17.2
West		
Central city of Std. Metropolitan Stat. Area	18.9	16.3
Ring of Std. Metropolitan Stat. Area	19.4	22.0
Outside of Std. Metropolitan Stat. Area	18.9	16.0

the mean weight probably represent the effects of the CPS attempting to compensate for sampling fluctuations by adjusting weights according to expected marginal totals for race, age, and sex.

Perhaps the sort of bias which is of greatest interest would be that pertaining to the educational aspirations of subjects and their mothers, but there are no data in the 1960 Census to use as a standard for comparison. Another sort of bias which is of major concern is that which involves various indicators of socioeconomic status. Although the possibilities for comparison between the CPS and the 1960 Census are limited by lack of detail in the latter, it is possible to make one comparison. There is a crosstabulation of enrollment by age, race, and sex of subject, education of father, if father present or of mother if father absent (or guardian if both absent), and family income. (U.S.B.C., School Enrollment, 1964, pp. 41-52) Crosstabulations were prepared from the CPS data tape to match as closely as possible the same crosstabulations as in the School Enrollment report. See Table 2. Note that rows 1, 6, 11, and 16 each sum to 100 percent across columns 2, 3, and 4 and across columns 6, 7, and 8. The remaining rows show percent distribution across both parent education and income so that percents in rows two through five by columns two, three, and four (12 percentages) sum to 100 percent, etc. Let us first examine the percents based on marginal totals for race-sex groups.

It can be seen in Table 2 that the CPS under-represents enrollees whose parents have an eighth grade education or less and over-represents subjects whose parent has a twelfth grade education or more. (White boys, $\Delta = 9.8$; white girls, $\Delta = 11.0$; Negro boys, $\Delta = 15.0$; Negro girls, $\Delta = 17.8$.)

Looking at the marginal distributions for income (columns one and five) it can be seen that the CPS probably under-represents low-income cases and over-represents middle-income cases relative to the 1960 Census. ($\Delta = 9.1$ for white boys; 6.0 for white girls; 8.8 for Negro boys; and 12.9 for Negro girls.) This could be partially due to a general rise in income for all families in the U. S. When both parent education and income are taken together, the difference between the two surveys is compounded so that the high-education--high-income groups are most over-represented while the low-education--low-income cases are under-represented ($\Delta = 13.0$ for white boys; 7.0 for white girls; 18.9 for Negro boys;

Table 2

PERCENT OF ENROLLEES,* AGES 14 THROUGH 19, BY EDUCATION OF PARENT AND FAMILY INCOME FOR RACE-SEX SUBGROUPS ACCORDING TO 1960 CENSUS AND 1965 CURRENT POPULATION SURVEY

Race, Sex and Income	1960 Census of Population **				1965 Current Population Survey			
	Total	Less than 8th Grade	Grades 8-11	12th Grade or More	Total	Less than 8th Grade	Grades 8-11	12th Grade or More
White Boys	100.0	18.6	39.6	41.8	100.0	13.0	35.3	51.6
Under $3000	12.9	5.1	5.2	2.6	10.3	3.5	4.5	2.3
$3000-4999	16.4	4.6	7.3	4.5	16.9	4.1	6.8	6.0
$5000-6999	22.2	4.0	10.1	8.1	30.9	3.6	13.0	14.3
$7000 +	48.3	4.8	16.9	26.6	41.9	1.8	11.0	29.1
White Girls	100.0	19.1	40.1	40.8	100.0	11.9	36.3	51.8
Under $3000	13.7	3.2	4.7	2.8	9.3	3.2	4.7	1.4
$3000-4999	17.0	3.8	7.3	4.7	16.8	3.8	7.3	5.7
$5000-6999	23.0	3.3	11.2	8.4	29.0	3.3	11.2	14.5
$7000 +	46.3	1.5	13.1	24.9	44.9	1.5	13.1	30.3
Negro Boys	100.0	54.1	31.1	14.7	100.0	41.0	36.1	26.6
Under $3000	46.6	30.9	12.5	3.2	45.4	26.3	13.7	5.4
$3000-4999	23.6	12.4	7.8	3.4	28.6	9.3	10.8	8.5
$5000-6999	14.3	5.9	5.3	3.1	18.1	4.7	10.1	3.3
$7000 +	15.4	4.9	5.5	5.0	7.8	.7	1.5	5.6

Table 2 (cont.)

PERCENT OF ENROLLEES,* AGES 14 THROUGH 19, BY EDUCATION OF PARENT AND FAMILY INCOME FOR RACE-SEX SUBGROUPS ACCORDING TO 1960 CENSUS AND 1965 CURRENT POPULATION SURVEY

Race, Sex and Income	1960 Census of Population**				1965 Current Population Survey			
	Total	Less than 8th Grade	Grades 8-11	12th Grade or More	Total	Less than 8th Grade	Grades 8-11	12th Grade or More
Negro Girls	100.0	53.6	31.2	15.2	100.0	35.8	36.6	27.6
Under $3000	46.8	31.0	12.3	3.5	40.1	18.3	12.7	9.1
$3000-4999	23.5	11.9	8.1	3.5	36.4	11.5	16.5	8.4
$5000-6999	14.8	6.1	5.5	3.2	12.8	5.0	5.9	1.9
$7000 +	14.8	4.6	5.3	4.9	10.7	1.0	1.4	8.3

* Persons enrolled in public and private elementary and secondary schools. Education of Parent is number of school years completed by father (unless father is absent, then it is mother's education.) 1960 Census figures are for white versus nonwhite; 1965 CPS data are for Negroes and Non-Negroes.

** Source: U.S.B.C., U.S. Census of Population: 1960. Subject Reports. School Enrollment. Final Report PC(2)-5A (U.S.G.P.O. 1964).

23.1 for Negro girls). With the exception of Negro girls, the distributions of cases according to parent education and family income are similar.

An over-all evaluation of this series of comparisons suggests that the subsample of enrollees used in this study are representative of a larger sample of enrollees obtained by the 1960 Census. Such differences as exist are in the direction that one would expect given the trends for the U. S. population. Of course, there are other characteristics involved in this study for which no 1960 Census data are available and there could be serious biases with respect to these characteristics.

Sampling Error - Sampling error is a measure of the chance deviation of a sampling statistic from the corresponding population value. Sampling error is described by confidence intervals that are correct according to specified proportions of cases in the long run, rather than that of actual error for a particular estimated rate. The standard errors for estimated percentages of persons enrolled in school (68 chances out of 100) are given by the Current Population Survey. (1967) The standard errors are given by the CPS for subgroups where the estimated base N is 500,000 and the estimated percentages are as follows (1967, p. 5):

2 or 98 percent	+ or - .8%
5 or 95 percent	+ or - 1.2%
10 or 90 percent	+ or - 1.6%
25 or 75 percent	+ or - 2.3%
50 percent	+ or - 2.7%

One can increase the confidence interval to 95 chances out of 100 by doubling the standard errors.

Tests of significance - Given the purpose of this study, there is less interest in estimating percentages of persons planning to attend college for any given subgroup than in comparing difference in percentages of college planners for two subgroups. The test for significance of difference between proportions was used. (Walker and Lev, 1953, pp. 77-79) Since the representation of enrollees in the CPS multi-stage cluster sample is unknown, it was decided to deflate the actual sample size by 20 percent and proceed to construct a table of minimum statistically significant differences for various size groups by use of the formula for simple random samples. (Walker and Lev, 1953, p. 78) Minimum differences which are statistically significant for pairs of subgroups having different sizes are given in Table 3. It should be noted that the table does not apply to subgroups with estimated N's of less than 400,000. Such groups usually contain around 200 cases. Although the discussion of results may occasionally focus on differences in college plans rates for smaller subgroups, the interest will be on the direction of the direction of the differences over a series of comparisons rather than on the significance of the magnitude of difference. A multivariate adjustment procedure is used which has some parallel with its parametric equivalent of multiple classification but which has no precise test for heterogeneity of adjusted rates. As a rough rule of thumb for evaluating the effects of adjustment, one would like to see differences between adjusted and unadjusted rates which are at least one-and-a-half times as large as the minimum significant differences shown in Table 3. A description of this multivariate adjustment procedure is presented after the next section which describes the measures of educational aspiration and other characteristics.

The Measurement of College Aspirations and Other Characteristics

College Aspirations - The measurement of aspiration and other characteristics is fixed by the construction of the questionnaires for the major study except that the response categories can be combined in various ways. It was decided to treat both the dependent variable, subjects' educational plans, and the independent variable, mothers' educational expectations for the subjects, as binary conditions. Subjects are categorized as either having college plans or not having college plans. Subjects are also categorized as either having mothers who expect them to go to college or having mothers who do not expect them to attend college. Although it has been the practice of some investigators to treat educational aspiration as a normally and continuously distributed variable, there are several reasons why this practice should not be perpetuated.

Let us first consider the properties of another variable which is closely related to educational aspiration, educational attainment. There are numerous issues that can be raised concerning measurement of attainment. Although "years of school completed" has a zero point, the years as intervals

Table 3

DIFFERENCES REQUIRED FOR SIGNIFICANCE (TWO STANDARD ERRORS) IN COMPARISONS OF PERCENTAGES DERIVED FROM TWO DIFFERENT SUBGROUPS

Weighted N (Thousands)		Percent For Both Subgroups Combined	Percent Required For Significance*
Subgroup 1	Subgroup 2		
400	400	50	10
		40 or 60	8
		30 or 70	6
		20 or 80	4
		10 or 90	2
1000	400	50	9
		40 or 60	7
		30 or 70	5
		20 or 80	4
		10 or 90	2
1000	1000	50	7
		40 or 60	5
		30 or 70	4
		20 or 80	3
		10 or 90	2

*Rounded up to the next largest whole percent

√

on a scale do not have any fixed ratio to each other. Furthermore, as the data are usually obtained, the distribution of cases within intervals is unknown. The distribution of the variable is at least bimodal with peaks at completion of the eighth and the twelfth years of school. There is variability in what constitutes a school year in the various states, variability in the quantity, content, and quality of instruction, and in the reporting of formal versus nonformal (special schooling, correspondence) schooling.

These problems are compounded when one considers educational aspirations rather than educational attainment. Youths and their mothers do not plan or expect to complete ten-and-a-half years of schooling or to finish one year of college. Rather, ambitions are keyed to finishing certain levels of schooling as completion is institutionally defined. Hence, all but a small percentage of youths who plan to go to college expect to either get the equivalent of four years of college or else to complete two years of college. The latter is particularly true of those who only expect to attend junior colleges. Likewise, those who do not plan to go to college overwhelmingly plan to finish high school, regardless of their eventual attainment. In short, educational plans and expectations reflect the institutionally or culturally defined steps or plateaus of educational achievement in American society.

The decision to dichotomize subject's plans involved several arbitrary steps. Subject's educational plans were obtained by a series of questions. (See Appendix 1, Form CPS 551) Subjects were first asked, "Do you expect to finish high school?" About 4 percent of the whites and 6 percent of the Negroes do not expect to finish high school. (See Table B-1, Appendix B.) These cases were included in the subgroup who do not plan to attend college. Subjects were asked, "Do you plan to attend a two-year community or junior college?" The response choices were, "Yes, definitely", "Yes, maybe", "No", and "Don't know." The subjects checking "yes, definitely" and "yes, maybe" were categorized as having college plans. Subjects checking "no" and "don't know" were categorized as not having college plans unless they answered yes to one of the following questions. Subjects were asked, "Do you plan to attend a four-year (or regular) college or university?" Again, the response categories were "yes, definitely; yes, maybe; no; and don't know." Those checking "yes, definitely" or "yes, maybe" were included in the college planning group; those indicating otherwise were not. Subject answering "yes, definitely" or "yes, maybe" were also asked, "If 'yes, definitely' or 'yes, maybe' how many years of college do you plan to complete?" with provision for checking one, two, three, or four or more years of college. So few students indicated other than two or four years of college that the U. S. Bureau of the Census combined single years of schooling in preparing the tabulation work tape. Subjects were also asked, "Do you plan to go to a professional school, such as a law or medical school, or to a graduate school?" The responses were limited to yes and no. Finally, subjects who did not indicate that they planned to go to college were asked, "Do you plan to attend any other school, such as a business college, barber college, technical or trade school, or hospital school of nursing?" The response categories were yes and no. Subjects who answered yes to this question were counted as being in the group not planning to go to college. In dichotomizing college plans versus no college plans, subjects who answered that they definitely or maybe planned to attend college were counted as having college plans, while those who answered no or don't know were counted as not having college plans. Subjects who did not answer any of the educational plans questions were counted as not planning to attend college. Although this may seem a questionable procedure, this arbitrary decision could not have had a significant effect on the analysis performed in this study since only 1.2 percent of the sample did not answer any of the aspiration questions. There is some difference in response rate by race and sex: 98.7 percent of the white males, 99.0 percent of the white females, 97.2 percent of the Negro males, and 99.1 percent of the Negro females answered the plans questions. Percentage distributions for the total sample of enrollees and for race-sex subgroups are shown in Table 5 in the next chapter.

Mothers of the subjects were asked, "How much schooling do you really expect this child to get?" The response categories were: "Finish grade school or less," "Get some high school," "Finish high school," "Go to a two-year junior or community college," "Go part way through a four-year (or regular) college or university," "Graduate from a four-year "or regular" college or university, and "Get more than four years of college." Mothers who checked any of the last four responses were categorized as having college expectations for their children. Mothers who checked any of the first three responses or who did not answer this question were categorized as not having college plans for their children. Only 2.7 percent of all subjects had mothers who did not answer this item. The numerical distribution of subjects according to mother's educational expectations, race, and sex are shown in Table 5 in the next chapter. Only 2.6

percent of the white subjects had mothers who did not answer this question; 1.9 percent of the Negro males and 4.5 percent of the Negro females had mothers who did not answer this question. The reason for the relatively low nonresponse rates for subject's educational plans and mother's educational expectation for the subject is that the Bureau of the Census designated these items of information as "fail-edit" items. This means that if information was not obtained for these items on the initial administration of the questionnaire, an attempt was made to get this information by readministering the questionnaire. The higher nonresponse rate for mothers may be partly a consequence of failing to provide a "don't know" response. In support of the previous remark that aspirations are not formed on the basis of single years of educational attainment, it should be noted that less than 3 percent of the subjects had mothers who do not expect them to finish high school and less than six percent of the subjects had mothers who expected them to go only part way through a four year college.

Admittedly, it would have been preferable to have provided a more elaborate measurement of plans and expectations than dichotomies used in this report. However, there are simply not enough cases to give a detailed breakdown of plans and aspirations and also control on several other variables. A simple cross-tabulation of detailed subject's plans by detailed mother's expectations produces 63 cells and further breakdown of cases according to sex and Negro versus non-Negro race produces 252 cells, many of which are empty in the case of Negroes (see Table 5 in the next chapter). Not only does the dichotomy between college and noncollege aspirations have theoretical interest, but it also has the fortunate property of cutting both subject's educational plans and mother's educational expectations for the subject near their medians. Cutting the dependent variable and the independent variables at the median provides more cases when further breakdown of cases is required. It also means that the four-fold tables come closer to the assumptions which underlie selected nonparameteric measures of association.

The measurement of other characteristics is discussed in the order in which they appear in the report. Race or color is measured according to the U. S. Bureau of the Census practice of having the members of the household classify themselves as being Negro or in some other category of race or color. (U.S.B.C., U.S. Summary, pp. xli-xlii) The analysis in this report simply distinguishes between Negroes and non-Negroes because there are too few cases of American Indians, Japanese, Chinese, or other color groups to treat separately in the analysis. The practice of grouping other "nonwhites" with "whites" probably does not distort the findings of the study since the Orientals are the largest racial group within the "other nonwhite" category and have the highest level educational aspirations and attainment while other color groups in this category have lower aspirations and attainment so that the average is similar to those of the whites. (Coleman and Campbell, 1966, p. 284.) Race and sex of respondent are obtained by a Current Population Survey interviewer and entered on a control card which is maintained for each household in the sample. There is complete count information for these two characteristics.

Data concerning the age of subjects was also obtained by the interviewer as part of the regular Current Population Survey. Age refers to the age of the subject at his last birthday before the time of the survey (October, 1965). The distribution of age in the sample reflects the normal attrition regarding secondary school enrollment. Over half of the sample is in the age group 14 and 15 years old; 43 percent are in the 16 and 17 year old age group and only 5.5 percent are in the 18-19-year-old age group. There is age information for all cases. Negroes differ from whites in that nine percent are 18 or 19 years old reflecting the greater age-grade retardation of Negroes in this sample.

Intelligence test scores were obtained from the school principal of the school in which the subject was currently enrolled by means of a mail questionnaire. (Appendix A, Form CPS-555) Principals were asked, "Has this pupil ever taken a group scholastic aptitude or intelligence test?" with a footnote which lists the ten most frequently used I.Q. tests in the United States. If the principal indicated that the pupil had taken a test, he was asked, "What is the full name of the most recent of such a scholastic aptitude or intelligence test?" Nine additional questions were asked in order to determine the edition, date, level, form, time of administration, grade level of the pupil, percentile score, and/or stanine score. Robert E. Herriott obtained information concerning the equivalence of the various tests from test publishers and devised a system for assigning all scores to stanines. This system was then used by the Bureau of the Census to code all intelligence test scores to stanines.

For the benefit of persons who may not be familiar with stanine scores, they are a form of standardized scores in which raw scores are converted to units of standard deviation. Stanine scores correspond to equal intervals in standard deviation units on the base line of the unit normal curve. (Anastasi, 1954, pp. 81-83; Kaiser, 1958, p. 261; Ferguson, 1966, p. 265) The percentages of cases in the nine intervals proceeding from unit one (lowest scores) to unit nine (highest scores) are: 4, 7, 12, 17, 20, 17, 12, 7, and 4 respectively. Hence the top four stanines should contain about 40 percent of the cases. As a general rule of thumb, the top four stanines should include persons with I.Q. scores of 105 or more. Intelligence test scores were dichotomized at this cutpoint because previous research indicates that persons should have I.Q. scores at this level or higher in order to have a reasonable chance of being successful in college. It is beyond the scope of this investigation to discuss what intelligence test scores indicate or what intelligence is. (For a brief review, see J. P. Guilford, 1967, pp. 1-68) Intelligence is used in this study as a crude indicator of the likelihood that a person can successfully do college work in conjunction with answering the question as to whether or not persons who probably have sufficient aptitude for college are actually planning to attend college. There is a high proportion of cases for which no I.Q. scores are available for two reasons. First, only about 90 percent of the informants gave names of schools which could be used to mail questionnaires to schools, then only 75 percent of the principals returned forms. Finally, only 80 percent of the forms included information on reasonably current I.Q. test scores. Therefore, only 56 percent of the cases have I.Q. scores. Misinformation and nonresponse rates were higher for Negroes than for whites so that I.Q. information is missing for about 65 percent of the Negroes. I.Q. information is missing for slightly over 40 percent of the whites. Since there is such a large block of cases without I.Q. information, the no-information groups are carried along as separate categories in the analysis.

Given the large nonresponse rates with respect to intelligence test scores, the analysis was repeated using another measure of academic ability, age-grade retardation. Since age and grade information is obtained as part of the Current Population Survey interview, this information is available for all cases. A measure of scholastic retardation was devised which is based upon these two bits of information. Following the practice of previous users of this kind of census information, a person was defined as being age-grade retarded if the grade in which he is enrolled is two years behind the modal grade of enrollment for persons of his age. (U.S.B.C., School Enrollment, 1964, p. ix, and Folger and Nam, 1967, p. 74) Thus, 14-year-old subjects enrolled in the seventh grade or less, 15-year-olds enrolled in the eighth grade or less, etc. are counted as being age-grade retarded. By this definition the few 19-year-olds in the sample are all age-grade retarded. Although there are doubtless some persons in the sample that are age-grade retarded for reasons of poor health, etc. there is generally a close relationship between being age-grade retarded and having a low I.Q. score.

Subject's value of college education as a success means was obtained by a single item on the "leave-behind" questionnaire for enrollees (U.S.B.C., Form CPS-551) which asked, "According to your OPINION, which of these is the BEST way for young people to get ahead in life? All of these may help but check ONLY the one which you think is best." The response choices are shown in Appendix A and the percentage distributions for the total sample and for Negroes and whites are shown in Table C-1 in Appendix C. Responses were dichotomized as being either "Get a college education" or all other responses including no response (4.4%).

Subject's perception of his mother's educational plans for him is measured by a single question on the "leave-behind" questionnaire Form CPS-551. The item asks, "How much education does your mother (or person taking your mother's place) want you to have?" The response categories and the percent of respondents in each category are as follows: "Doesn't care if I finish high school or not" (.4%); "Finish high school only" (18.5%); "Some college but less than 4 years" (14.9%); "Finish a 4-year college" (40.7%); "Professional or graduate school after college" (12.3%); "I don't know" (9.5%); and no answer (3.8%). Further discussion of the relationship between subject's perception of mother's plans and mother's expectations as reported by the mother is given in the next chapter.

Characteristics of the subject's mother were obtained either during the regular CPS interview or by a special "leave-behind" questionnaire (U.S.B.C. Form CPS-553) which was filled in by the mother or by a person acting in place of the mother if mother was dead or absent. Mother's educational attainment was obtained as part of the regular CPS interview in the household. The item asks: "What is the highest grade (or year) of regular school ________has ever attended?" "Did_________finish this grade (year)?" The original responses include no schooling, kindergarten, single years of elementary school, single years of high school, and single years of college. These response categories were grouped for the purpose of this analysis and the grouping and percentage distribution of subjects having mothers in each category are as follows: finish 8th grade or less (22.2%); finish grades 9 through 11 (21.1%); finish 12th grade (38.8%); finish one or more years of college (13.6%); and no information (4.3%).

Farm background of mother was obtained by two questions on the CPS-553 "leave-behind" questionnaire. Early farm background was obtained by the item: "When you began grade school, did you live on a farm?" with response categories of yes and no. Recent farm background was obtained by the item: "In April 1960, did you live on a farm?" with response categories of yes and no. Subjects were crossclassified according to four categories of mother's farm background and distributed as follows: mother lived on a farm in grade school and lived on a farm in 1960 (9.6%); mother lived on a farm in grade school, but did not live on a farm in 1960 or not information about 1960 residence (23.6%); mother did not live on a farm in grade school but lived on a farm in 1960(2.5%); mother did not live on a farm in grade school and did not live on a farm in 1960 or no information about 1960 residence (59.8%); and no information on both grade-school residence and 1960 residence (4.5%). This peculiar treatment of nonresponse for mother's 1960 residence was governed by convenience in computer programing. It should be noted that less than half a percent of the mothers who answered the first farm residence item failed to answer the second (1960) residence item.

Mother's religion was also obtained from the questionnaire. The item was worded, "What is your religion?" The response choices were intended to represent the largest religious denominations according to a 1957 CPS survey and they are: Baptist, Methodist, Lutheran, Presbyterian, Episcopalian, Other Protestant, Roman Catholic, Eastern Orthodox, Jewish, Other Religion, and No Religion. These categories were collapsed for the purposes of the main analysis into six groupings and subjects are distributed according to these categories as follows: Baptists (20.3%); Large Protestant--including Methodists, Lutherans, Presbyterians, and Episcopalians--(26.8%); Smaller Protestant denominations--other than denominations mentioned above--(11.9%); Roman Catholics (28.0%); Jews (2.4%); and other religion or no religion or no answer (10.5%). The residual category is made up of less than one percent Eastern Orthodox or Greek or Russian Orthodox subject, about .2 percent of subjects whose mothers wrote in some other religion, about 2 percent of the mothers mention no religion and about seven percent of the subjects had mothers who did not answer this item. A detailed analysis of college plans of white subjects by mother's religion appears in Appendix D. There are race differences in the composition of the six gross categories of religion used in the main analysis. Thirty-six percent of the subjects with Baptist mothers are Negro; 7.7 percent of the subjects connected with the large Protestant denominations (other than Baptist) are Negro; 7.3 percent of the smaller Protestant-denomination subjects are Negro; 2.4 percent of the Roman Catholics are Negro; and 12.7 percent of the residual category is Negro (about the same percent Negro as for the total sample). There are no Jewish Negroes in this sample.

Mother's value of college education as a success means was obtained by a single item on the "leave-behind" questionnaire (Appendix A, Form CPS-553, page 2). The item is, "According to your OPINION, which one of these is THE BEST way for young people to get ahead in life? All of these may help but check only the one which you think is best." The response choices are given in Appendix A, Form CPS-553, second page. The responses were dichotomized. Sixty-one percent of the subjects had mothers who indicated that obtaining a college education was the best way for young people to get ahead. The remaining cases had mothers who indicated some other best way or did not respond (about 5 percent nonresponse). Part of the analysis involves crosstabulation of subject's best way by mother's best way., The percentage distributions for the four-fold table are: subject and mother agree, get a college education is best--42 percent; subject-college education, mother-not college--12 percent; subject-not-college, mother-college--19 percent; both subject and mother not college--27 percent.

Only a gross classification of occupation of household head was provided on the U.S.B.C. work tape. (One person is designated as "head" in each household; it usually is the person regarded as head by members of the group and married women are not classified as head if living with their husbands; U.S.B.C., U.S. Summary, 1964, p. LVI.) The categories of occupation given on the work tape were: "white collar," "manual or service," "farm," "unemployed and not in the labor force" (the labor force includes unemployed persons who are looking for work but excludes housewives, those who are not seeking work and persons who cannot work because of physical and mental disability), and "no information." "White collar occupations" include those in the major U.S.B.C. occupational groupings of professional, technical, and kindred workers, managers, officials and proprietors (excluding farm managers), sales workers, and clerical and kindred workers. (U.S.B.C., *U.S. Summary*, 1964, p. LXVII) Manual and service workers includes all the other nonfarm occupations. Occupation of head of household was obtained as part of the regular CPS household interview so the nonresponse was very low (1.4 percent). About one-third of the subjects come from households in which the head has a white collar occupation; 46 percent are from households where the head has a manual or service occupation. Ten percent of the subjects come from homes in which the head is unemployed or not in the labor force, and 6 percent are from households in which the head has a farm occupation.

Family income is the algebraic sum of money income received from wages or salary, or from self employment, or other sources (such as interest, pensions, rent, alimony, unemployment benefits, etc.) by all persons over age 14 in the family. It should be noted that there are slight differences between definitions of income used by the CPS and the decennial census because the CPS interview uses more questions to get details about income. Since income is also obtained as part of the regular CPS interview, the nonresponse rate is modest (7.7 percent). Family income was grouped in four categories for the purpose of analyses in this report. The main cutpoints of interest were those at \$4,000 annual income which could be considered the poverty line; and \$6,000 annual income which is near the median family income for the United States. (U.S.B.C., *U.S. Summary*, 1964, p. LXXXI) Over 21 percent of the subjects are from families which have annual incomes below \$4,000; 21 percent have families with incomes \$4,000--5,999. Over 30 percent come from families with incomes \$6,000--9,999 and 19.5 percent are from families with incomes \$10,000 and over.

The educational aspiration of the subject's best friend is really the subject's perception of best friend's plans. The information is obtained by an item on the subject's questionnaire: "What is the highest grade or year of school that YOUR BEST FRIEND plans to complete?" Nonresponse rate was quite low on this item, slightly over one percent of the persons who returned the questionnaire failed to answer this item. However, almost one-fourth of the cases indicated they did not know what their best friend's plans were. (See response choices in Appendix A, Form CPS-551.) For the sake of simplicity and to provide the maximum number of cases in the higher-order partials, it was decided to dichotomize the responses into "college plans" versus all other responses and no response. Fifty-one percent of the subjects report that their best friend plans to go to college. This is within two percent of the grand college-plans rate for all subjects in the sample as it is defined in this study.

Three characteristics of schools attended by subjects were obtained from the school principal's questionnaire. (See Appendix A, Form CPS-554) One of these is the principal's estimate of percent of high-school graduates going on to college. A series of items are used to get this information. The first item is: "During the 1964-1965 school year, did your school have a 12th grade?" If the principal indicated "yes," he was asked how many students graduated that year and then, "Of this number of graduates what percent--a. are now enrolled in a four year college? b. are now enrolled in a two year college?" The responses were recoded to get the percent of graduates going to any two or four-year college and this response was assigned to the individual subject as a "context" score. Almost 30 percent of the subjects attend schools where less than half of the graduates are enrolled in college the next fall. Almost a fourth are enrolled in schools where more than 50 percent of the graduates go to college. Over 45 percent of the subjects are from schools with no response from the principal (about 30%) or no twelfth grade (about 15%).

The male dropout rate for the school attended by the subject was obtained by the principal's questionnaire item. "What percent of the BOYS who entered your 10th grade in the fall of 1962 "dropped out" before the graduation of their class in 1965? Over 49 percent of the subjects came from schools in which the principal did not return the form (about 30%), or else the school had no 12th grade, or no boys, or the school was not in operation in 1962 (about 19%). Almost one-third of the subjects came from schools in which the estimated drop-out rate for boys was less than 10 percent; 18 percent were for schools with a rate of 10 percent or more.

The percent Negro in the school was estimated by the principal in response to the following item: "Please estimate the percent of pupils in the following groups on the basis of your present knowledge. What percent are Negro?" (Appendix A, Form CPS-554) About one-third of the subjects are from schools where the principal did not respond. The response categories could vary from zero to a hundred percent. School segregation is such in the U. S. that about 40 percent of the subjects attend schools where the percent Negro is estimiated to be 10 percent or less. About 11 percent of the cases attend schools where the percent Negro is greater than 10 percent and most of these are attending schools in which the percent Negro is over 90 percent.

Region and type of residence is also introduced into the analysis. The description of place of residence is covered in the first part of this chapter. There is, of course, no non-response to this information since it is part of the sampling system.

A review of the variables and characteristics described in this analysis will remind the reader that with the exception of age and income the level of measurement is nominal or ordinal. They are not normally or continuously distributed. (e.g., the distribution of subjects according to the percent Negro in the school is U-shaped; the distribution of educational aspirations is tri-modal). These properties introduce certain constraints on the kinds of statistics that can be used. These are described in the next section.

Descriptive Statistics

Association Between Two Variables or Characteristics - The main purpose of this report is to describe the relationships between educational plans of subjects and mother's educational expectation for subject or some other characteristic. The interest is centered on those relationships between college plans and the other variables in which variation in an independent variable is associated with major differences in the college plans rate. The discussion tends to ignore minor variations in level of educational plans even though such variations may turn out to be statistically significant. An exception to this general approach is the relationship between plans and race, because even though the difference in college plans by race is small the measurement of this difference is part of the main reason for this study. Persons interested in questions of statistical significance may refer to Table 3 earlier in this chapter.

Given the fact that many of the measures are only nominal (such as race, sex, farm residence, mother's religion, region, etc.), it seems advisable to use some nonparametric measure of association. Goodman and Kruskal have suggested a measure of association for crossclassifications which involves a minimal number of assumptions. (1954, pp. 759-760) The measure is Tau_b.

It represents the relative decrease in incorrect predictions about a subject's classification on the dependent variable (or attribute) when his position on the independent variable (or attribute) is known, as opposed to only knowing his position on the dependent variable (attribute). It is obvious that when the distribution of the dependent variable (attribute) is concentrated in one or a few categories (e.g., a dichotomy with 90% of the cases in one category), then knowledge about some other predictive characteristic can add little to predictive efficiency. Hence, there is some advantage in using variables which are evenly distributed across categories. Thus, the analysis begins with subject's educational plans, mother's educational expectations and some other characteristics such as best friend's plans having cutpoints near their medians. Tables of percentage differences accompany the tables with Tau$_b$'s in order to make the nature of the relationship explicit for those who may be interested.

Multivariate Analysis - The intention to test for interaction along with the nature of the data and the size of the sample calls for a form of multivariate analysis which will describe the additive effects of mother's educational expectations and each (or several) of the other characteristics on subject's chances of planning for college. A modified form of multiple classification will be used. (Morgan, *et al.*, Appendix E, pp. 508-511; Blau and Duncan, pp. 128-147) Since the dependent variables takes the form of a rate and since many of the characteristics are not normally or continuously distributed, a form of statistical analysis is needed that adjusts the college plans rate for the additive effects of several characteristics while simultaneously taking into account correlation among the characteristics. The author is obliged to Otis Dudley Duncan for the notion of extending multiple classification from means to rates (unpublished memorandum, 1963), but Duncan is not responsible for this particular application of the statistic. The technique, as it is used in this report, is somewhat similar to multiple correlation analysis except that the dependent variable is binary and each subclass of each independent variable is binary. Subject's plans are scored as "one" if he plans to go to college and "zero" if he does not. Similarly, each category of each characteristic is treated as a "dummy variable" which takes the value "one" if the data case belongs to a particular subclass of that characteristics and "zero" if it does not. No assumptions need to be made about the linearity of the characteristics. The dependent variable is supposed to be normally distributed which means that a binary equivalent should have a cutpoint which is at the median. Fifty-two percent of the total sample has college plans and 48 percent does not.

The analysis in this report assumes a straightforward additive model which in four variable analysis takes the following form: $R_{ijk} = R_{..} + a_i + b_j + c_k + e_{ijk}$. Where R_{ijk} = the college plans rate for a subgroup defined by the "ith" category of mother's expectations, the "jth" category of one of the other characteristics (such as race), and the "kth" category of another characteristic (such as sex). $R_{..}$ = the grand college plans rate for the total sample; a_i, b_j, and c_k are solution vectors (from solving a set of normal equations) which represent deviations from the grand rate. These are deviations adjusted for the average effects of the other characteristics represented in the equations. The last term, e_{ijk} , represents the interaction or "error" term. It is questionable as to whether this term (e_{ijk}) represents departures from the additive model (interaction), sampling error, or measurement error. It will be the practice in this report to treat minor departures from the model (less than twice the standard error of the rate) as due to sampling and/or measurement error.

The solution vectors, or adjusted deviations, are calculated by setting the grand rate at zero and solving a set of normal equations, one for each category of each characteristic, and the right-hand members represent the difference between the category rate and the grand rate multiplied by the category "n." The equations for three two-category characteristics are written as follows:

$$
\begin{array}{lllllll}
N_{.i_1} & + 0 & + N_{i_1 j_1} & + N_{i_1 j_2} & + N_{i_1 k_1} & + N_{i_1 k_2} & = N_{.i_1} (R_{.i_1} - R_{..}) \\
N_{.i_1} & + N_{.i_2} & + 0 & + 0 & + 0 & + 0 & = 0 \\
N_{j_1 i_1} & + N_{j_1 i_2} & + N_{.j_1} & + 0 & + N_{j_1 k_1} & + N_{j_1 k_2} & = N_{.j_1} (R_{.j_1} - R_{..}) \\
0 & + 0 & + N_{.j_1} & + N_{.j_2} & + 0 & + 0 & = 0 \\
N_{k_1 i_1} & + N_{k_1 i_2} & + N_{k_1 j_1} & + N_{k_1 j_2} & + N_{.k_1} & + 0 & = N_{.k_1} (R_{.k_1} - R_{..}) \\
0 & + 0 & + 0 & + 0 & + N_{.k_1} & + N_{.k_1} & = 0
\end{array}
$$

Let the data for Table 8 provide a numerical example. Let mother's educational expectation be the "i" characteristic, so that "$N_{.i_1}$" refers to the total subjects whose mothers expect them to go to college and "$N_{.i_2}$" refers to the total number of subjects whose mothers do not expect them to go to college. Let race be the "j" characteristic, so that "$N_{.j_1}$" refers to the total subjects who are Negro and "$N_{.j_2}$" refers to the total subjects who are not Negro, and "$N_{i_1 j_1}$" refers to subjects whose mothers expect them to go to college and who are Negro, etc. The actual data are as follows:

	N_{i_1}	N_{i_2}	N_{j_1}	N_{j_2}	N_{k_1}	N_{k_2}	N(R.-R..)
	M: Go Col	M: Not Go	Negro	Not Negro	Female	Male	Rt.H.M.
M: go Col	82,187	0	8,945	73,242	37,521	44,666=	+19,639
M: Not Go	82,187	52,653	0	0	0	0=	0
Negro	8,945	7,640	16,585	0	8,215	8,370=	- 447
Not Negro	0	0	16,585	118,255	0	0=	0
Female	37,521	27,446	8,215	57,652	64,967	0=	- 2,878
Male	0	0	0	0	64,967	69,873=	0

These equations can be solved by any computer program suitable for solving simultaneous linear equations, provided it allows for zero entries. The solution vectors are:

Mother's expectation--subject go to college	=+ .238 or + 23.8%
Mother's expectation--subject not go to col.	=- .372 or - 37.2%
Negro	=+ .016 or + 1.6%
Not Negro	=- .002 or - .2%
Female	=- .025 or - 2.5%
Male	=+ .023 or + 2.3%

The solution vectors represent adjusted deviations away from the grand rate of college plans (52.5%). The unadjusted deviation away from the grand rate for the effect of being in the subgroup whose mothers expect college is + 23.9 percent (76.4% - 52.5%). The deviation away from the grand rate for this subgroup, adjusted for the interrelationship between race, sex, and mother's educational expectation for the subject, is + 23.8 percent, indicating that adjusting the rate for this subgroup by these factors has little effect. Adjusting the effect of being a Negro by mother's educational expectation and sex has a somewhat more substantial result. The unadjusted deviation from the grand college plans rate for Negroes is a -2.7 percent; the adjusted deviation is a + 1.6 percent. (Furthermore, the difference between the unadjusted and adjusted deviations is probably statistically significant; see table of standard errors of percentages given above.) It should be remembered that this particular adjusted deviation for the effect of being a Negro on chances of having college plans only has meaning when considered in conjunction with mother's expectation and sex. If other characteristics are involved in the adjustment, the adjusted effect of being a Negro may take a different value (e.g., when the effect of being a Negro on college plans rate is adjusted by intelligence test score as well as by mother's expectation and sex the adjusted deviation is a +2.7 percent; see Table 10.)

Since there are considerable relationships between the various characteristics (such as between race and income), this statistic is useful in that it adjusts the observed rate for each classification (characteristic) in the light of association (or "correlation") among all the classifications in that particular analysis. The adjusted deviations can be used to predict an "expected" rate for any subgroup described by the characteristics included in the multiple classification. This "expected" rate reflects the college plans rate that one would anticipate for that subgroup if the effects of the characteristics were additive. The difference between the expected and observed rate represents either interaction or error (see model given above). A numerical example of examination for interaction is given in connection with the discussion of results for Table 8 on page 92.

Further comments regarding the design and methods of this investigation are presented as methodological issues arise in the presentation of the findings and in the interpretatins of the findings.

Chapter III

SUBJECT'S EDUCATIONAL PLANS, MOTHER'S EDUCATIONAL EXPECTATION FOR HER CHILD AND EACH OF THE CONTROL VARIABLES

The Three Sets of Relationships

This chapter is concerned with describing the relationship between educational plans of subject and each of the other variables or characteristics within four subgroups described by race and sex. Next the relationships between subject's detailed educational plans and mother's detailed educational expectations for the subject are examined for all the cases and then within the four subgroups described by race and sex. The last part of the chapter is concerned with describing the relationship between mother's educational expectation for the subject and each of the control variables. The need for a multivariate analysis to see if the relationship between subject's plans and mother's expectations is spurious when the control variables are considered is apparent from the findings presented in this chapter.

The Relationship between College Plans and the Control Variables

Sex and Race - There is some relationship between college aspirations and each of the variables included in the analysis although in certain instances the relationship is confined to certain race-sex groups. The degree of relationship is shown in Table 4A and the percentage having college plans for each category of the control variables is shown in Table 4B. There is a small difference in male and female college-plans rates: 57 percent of the boys and 48 percent of the girls plan to attend college. There is even less difference by color: 53 percent of the whites and 49 percent of the Negroes plan to go to college. However, it will subsequently be shown that in some cases there is appreciable interaction between race, sex, and some other variables, particularly mother's expectation, on college plans.

Age - In general, there is a negative relationship between college aspiration and age. This difference is more noticeable for females than for males. The rate tends to be particularly low for eighteen and nineteen year-old subjects but this is such a small subgroup of the total population that the rates are unstable across race-sex subgroups. Whether the low rates for

Table 4A

ASSOCIATION* BETWEEN EDUCATIONAL PLANS OF SUBJECT AND CHARACTERISTICS OF THE SUBJECT, MOTHER AND FAMILY, PEERS AND SCHOOL, AND COMMUNITY

Attribute or Variable	Total	Males		Females	
		Whites	Negroes	Whites	Negroes
Characteristics of subject					
Race	.00n	...	...	...	...
Sex	.01	...	...	...	...
Age	.01	.02	.01n	.01	.01n
I.Q.**	.07	.10	.08	.06	***n
Age-grade retardation	.02	.04	.01n	.02	.01n
Subject's value only**	.06	.09	.03	.06	.02n
Perceived mother's expt.**	.26	.29	.14	.26	.21
Characteristics of Mother of Family					
Mother's expectation	.36	.37	.21	.39	.25
Mother's education**	.09	.08	.07	.12	.07
Mother's farm background	.01	.01	.04	.01	.00n
Mother's religion	.03	.03	.03	.03	.02n
Mother's value only	.07	.09	.03n	.06	.02
Mother and subject value	.08	.10	.03n	.08	.06
Occupation of household head**	.05	.06	.05	.01	.05
Family income**	.05	.05	.03	.08	.02
Characteristics of peers or school					
Best friend's plans	.14	.16	.09	.14	.10
Percent go to college**	.03	.03	.02n	.02	.02n
Percent boys dropout**	***n	.00n	.00n	.00n	.00n
Percent Negro**	***n	.00n	.00n	***	.00n
Characteristics of Community					
Region only	.02	.02	.01n	.02	.01n
Residence only	.01	.01	.01n	.01	***n
Region by residence	.02	.03	.04	.03	.04

*Tau_b

**Cases with no information excluded

***Less than .01

n not significant

Table 4 B

PERCENT OF SUBJECTS WITH COLLEGE PLANS BY CHARACTERISTICS OF SUBJECT, MOTHER AND FAMILY, PEERS AND SCHOOL, AND COMMUNITY

Attribute or Variable	Total	Males		Females	
		White	Negro	White	Negro
All Cases	52.5	57.3	51.7	48.1	47.8
Age					
14-15	53.8	56.1	62.0	53.2	52.9
16-17	52.7	60.5	47.0	46.5	41.9*
18-19	38.9	44.7	50.7	20.9	44.6
I.Q. Score					
Top 4 stanines	67.0	73.4	92.5	60.4	51.9
Bottom 5 stanines	41.1	42.6	50.4	35.8	56.6
No information	50.2	54.9	49.4	46.5	43.8
Age-Grade Retardation					
Retarded	28.7	26.8	41.4	19.8	36.7
Not retarded	54.7	60.4	55.0	49.4	49.6
Subject: Best way to succeed					
Get a college education	64.5	70.6	58.4	60.1	54.6
Other	39.4	41.0	42.0	34.9	41.8
Subject Perception of Mother's Plans					
Finish high school/less	9.4	8.8	22.0	7.8	14.0
Go to college	70.7	74.7	66.7	66.9	67.7
Don't know mother's plan	25.0	25.8	28.6	26.1	9.7
No information	10.0	10.8	25.2	5.9	3.3
Mother's Education					
8th grade or less	33.9	35.5	41.4	28.1	40.9
9th-11th grade	42.7	48.4	53.1	34.4	42.6
12th grade	60.9	65.4	63.2	55.6	62.3
Any college	78.9	78.1	95.6	78.5	86.7
No information	36.8	39.8	49.8	34.0	21.8
Farm Residence					
Farm-child; Farm-1960	41.7	47.9	31.7	34.7	54.6
Farm-child; Nonfarm-1960	50.2	54.5	57.1	45.0	49.0
Nonfarm-child; Farm-1960	42.4	43.7	0.0	41.8	46.7
Nonfarm-child; Nonfarm-1960	57.3	61.8	55.9	53.2	49.1

Table 4 B (continued)

PERCENT OF SUBJECTS WITH COLLEGE PLANS BY CHARACTERISTICS OF SUBJECT, MOTHER AND FAMILY, PEERS AND SCHOOL, AND COMMUNITY

Attribute or Variable	Total	Males		Females	
		White	Negro	White	Negro
Mother's Religion					
Baptist	43.6	46.4	47.0	37.8	45.0
Large Protestant	58.2	61.9	64.0	53.7	60.0
Smaller Protestant	48.8	49.6	74.7	45.8	54.0
Roman Catholic	55.0	60.4	58.5	48.6	61.7
Jewish	86.1	90.5	...	82.1	...
Other	44.6	51.5	46.3	39.8	28.1
Subject&Mother: Success Means					
S: other; M: other	33.3	36.2	41.6	29.2	34.6
S: other; M: col. educ.	45.1	47.1	42.6	43.3	44.8
S: col. educ.; M: other	57.0	64.2	56.8	52.9	32.7
S: col. educ.; M: col. educ.	66.8	72.8	59.0	62.4	60.9
Occupation of Hsld. Head					
White collar	68.4	72.3	66.4	63.4	86.0
Blue collar	45.7	49.9	54.3	40.5	41.6
Farm	43.1	49.2	34.3	37.8	48.4
Unemployed	38.2	37.5	44.3	33.6	48.1
No information	57.2	41.2	72.1	51.1	82.8
Detailed income					
<$4,000	38.4	42.4	45.3	27.1	44.3
$4,000-5,999	44.2	47.7	53.6	38.3	48.8
$6,000-9,999	55.7	61.7	56.8	49.5	49.1
$10,000 or more	69.8	70.6	84.0	68.6	73.5
No information	57.6	59.0	78.0	53.6	59.1
Best Friends Plans					
Go to college	71.4	77.1	73.3	66.0	67.2
Not go to col. & NA	34.0	37.8	40.8	28.1	34.4
Percent Go to College					
Less than 50 percent	46.7	52.9	50.1	40.2	43.7
50 percent or more	63.1	69.0	66.2	56.0	60.9
No 12th grade & NA	50.6	52.7	50.0	48.9	48.0

Table 4 B (continued)

PERCENT OF SUBJECTS WITH COLLEGE PLANS BY CHARACTERISTICS OF SUBJECT, MOTHER AND FAMILY, PEERS AND SCHOOL, AND COMMUNITY

Attribute or Variable	Total	Males		Females	
		White	Negro	White	Negro
Percent Boys Dropping Out					
Less than 10 percent	56.4	63.4	56.1	48.9	56.7
10 percent or more	50.4	56.2	49.6	44.8	44.2
No 10th grade & NA	50.6	53.0	51.5	48.8	46.9
Percent Negro					
10 percent or less	53.4	57.8	53.6	48.6	47.8
11 percent or more	52.9	61.3	56.3	43.8	49.0
No information	50.9	55.3	47.1	48.0	46.8
Region by Residence					
North-central city SMSA	51.7	57.8	58.2	45.1	45.9
North-ring around SMSA	54.6	60.6	51.2	49.2	21.0
North-outside SMSA	48.5	54.8	55.6	42.1	56.5
South-central city SMSA	53.6	58.0	55.6	51.3	45.3
South-ring around SMSA	51.7	54.1	50.1	47.9	58.1
South-outside of SMSA	41.4	41.8	43.5	38.4	47.5
West-central city of SMSA	69.6	73.5	60.8	69.1	50.1
West-ring around SMSA	66.3	68.6	73.2	62.9	88.0
West-outside of SMSA	57.8	63.1	72.0	52.3	...

*Underline indicates estimated population N is less than 400,000.

this subgroup are a consequence of age-grade retardation or adjustment of expectation relative to actual opportunity upon reaching the age for final decision to attend college (or both) is a matter for conjecture.

Intelligence Test Score - The relationship between measured intelligence and college aspiration is in the predicted direction although not as large as one might expect. About two-thirds of the high I.Q. youths plan to attend college. But over 41 percent of the low I.Q. youths also plan to attend college. This is a group whose measured intelligence is less than 105. Although there is no magic cut-off point below which one cannot expect to successfully attend college, the probabilities that one would successfully complete college are greatly reduced for persons in this category. That almost half of the low I.Q. subgroup plans to attend college anyway may be some indication of the ubiquity of college aspirations in the adolescent subculture which could serve to make plans somewhat independent of ability. There is some difference in the plans-intelligence relationships for age-sex subgroups. There is no relationship between I.Q. scores and plans in the case of Negro females; in fact, Negro girls in the low intelligence category are slightly more likely to plan for college than those in the high intelligence category. The relationship is in the predicted direction for the other categories. Unfortunately, the survey was unable to obtain I.Q. scores for about half the sample. Therefore, it seems desirable to consider an alternative measure of ability which depends only on age and grade in school for which data are nearly complete. This measure is age-grade retardation.

Age-grade Retardation - Youths are classified as being age-grade retarded if their age is two or more years higher than the age mode for the year in school in which they are enrolled. Only a small percentage (8.4%) of all cases are age-grade retarded by this definition. Retardation has a significant impact on college plans. Less than three out of ten retarded youths plan to attend college while about five out of nine nonretarded youths have college plans. Retardation has the greatest effect on the plans of white males and the least effect on the plans of Negroes. Whether or not this is partly a consequence of greater prevalence of retardation in the Negro sample is not known. Almost one out of five (18.7%) Negroes in the sample is age-grade retarded.

College Education as a Success Means-Subject - Subject's value of education as a success means is also related to level of educational aspiration. Over half (54.2%) of the subjects picked, "Get a college education" as, "the best way for young people to get ahead in life." A more elaborate analysis of subjects' responses to this item is presented in Appendix C. Almost two-thirds (64.5%) of these subjects plan to attend college while less than forty percent of those who picked some other success means plan to go to college. Value of college education as a success means is more closely associated with educational aspirations of whites than aspirations of Negroes and more closely associated with aspirations of boys than of girls. The relation between value and aspiration is not significant in the case of Negro girls. Whether or not Negro subjects respond to this item with themselves in mind or with "young people in general" in mind is a matter for speculation. Since Negroes are more likely to choose college education as a success means, it seems probable that their responses simply reflect the generally high valuation that Negroes place on education. See Appendix B and Nam, Rhodes, and Herriott (1966).

Subject's Perception of Mother's Expectation - Subject's perception of his mother's educational aspiration for him was measured by the item, "How much education does your mother (or person taking your mother's place) want you to have? Answers were grouped in four categories: any college, less than college, don't know, and no answer. This is the best single predictor of subject's aspiration other than mother's own report of her expectation for the child. Over 70 percent of the subjects who indicate that their mother wants them to go to college also indicate that they, themselves, plan to go to college. Only one out of ten pupils who think that their mother wants them to finish high school (or less) expect to attend college. A fourth of those who don't know mother's aspiration expect to attend college. The low college-plans rate for subjects who did not answer the mother's plans item probably is due in part to nonresponse on both items. The analysis of the relationship between subject's plans and mother's expectation is presented later in this report.

There is some difference by race and sex with regard to the relationship between subject's own plans and his perception of his mother's plans for him. Whites, particularly white boys, are more likely to plan for college if they think their mother plans for them to attend. Negroes, on the other hand, are more likely than whites to plan to attend college when they think that their mothers do not plan for them to attend college. This is more true of Negro males than Negro females. However, the numbers of cases in these subgroups are small so one would not want to make too much over this race-sex difference in effect of perceived mother's plan on subject's plan.

Mother's Educational Attainment - In general, the relationship between college plans and the remaining characteristics is somewhat less than the relationships described above. The best of the remaining characteristics other than best friend's plans, is mother's educational attainment. There is a positive relationship between subject's educational aspiration and mother's level of educational attainment. Almost 80 percent of the subjects whose mothers have attended college themselves plan to attend college, while only a third of those whose mothers did not attend high school have plans to go to college. The relationship between mother's education and college plans varies somewhat by race and sex. The very small sample of Negroes whose mothers attended college have the highest college-plans rate. On the other hand, Negroes whose mothers did not finish high school have higher college-plans rates than do whites in this same category of mother's attainment.

Mother's Farm Background - Another characteristic of mothers which is related to youth's aspiration is presence or absence of farm background. Although the relationships are not as large as was the case for mother's education, there is a negative relationship between farm background of mother and subject's aspiration. Subjects whose mother grew up on a farm or who lived on a farm as recent as 1960 were less likely to plan to attend college, while those whose mothers have always lived in the city are more likely to plan to attend college. Mother's farm background seems to have the greatest effect on the college plans of Negro boys and white girls.

Mother's Religion - Mother's religion is related to college plans. Subjects with Jewish mothers are most likely to plan for college. Those whose mothers are Methodists, Presbyterians, Lutherans, or Episcopalians are next most likely to plan for college, followed by Roman Catholics. Youths whose mothers are Baptists or else identified with the smaller Protestant denominations are least likely to plan for college. There is some difference by race and sex. Negro Baptists are more likely to plan for college than white Baptists. White Catholic boys are more likely to plan for college than white Catholic girls. There are too few Negroes whose mothers are identified with denominations other than Baptist to make much over the differences. There are few Negro Catholics and no Negro Jews. A more elaborate analysis of college plans of white subjects by mother's religion and religious composition of school is given in Appendix D.

College Education as a Success Means--Mother - There is an appreciable relationship between mother's value of education as a success means and educational aspiration of subject. Subjects whose mothers indicate that getting a college education is the best way for young people to get ahead in life are most likely to plan to attend college. The relationship is stronger for white males than for white females and stronger for whites than for Negroes.

This analysis was extended by crossclassifying mother's and subject's value of success means to produce four subgroups. One is the group in which both child and mother select some means other than college education as the best way to get ahead; another includes those subjects whose mothers choose college education but the subject himself chooses some other means. A third subgroup is made up of subjects who choose college education but whose mothers choose some other means. The fourth group is made up of subjects who choose college as the best means and whose mothers choose college as the best means. This crossclassification is a better predictor of subject's plans than either subject's value or mother's value alone. Two-thirds of subjects who pick education as the best means, and whose mothers make the same choice, intend to go to college. Only one-third of the subgroup in which both subject and mother choose means other than education plans to attend college. Again, the relationship is greatest for white males, less for white females and least for Negroes.

Occupation of Head of Household - The relationship between college plans and such indicators of socioeconomic status is in the predicted direction. Subjects from families where the head of household has a white collar job are most likely to plan for college. Those from blue collar families and particularly farm families are less likely to plan for college. Those from families where the head of household is unemployed are least likely to plan for college. Occupational level makes less of a difference for Negro boys and white girls than for white boys and Negro girls.

Family Income - The relationship of college plans and income is also in the anticipated direction. The higher the income, the higher the college plans rate. Rates are particularly low for white females from families with less than $4000 annual income. Rates are particularly high for Negroes, especially boys, from high income families. Since there are very few such cases in this sample, one cannot be sure whether or not the high rates for high income Negroes are real or merely a reflection of sampling fluctuation.

Best Friend's Plans - One of the best predictors of college plans, particularly for whites is whether or not the subject indicates that his best friend plans to go to college. His perception of peers' plans is more closely associated with his own plans than any of the other items as they are measured in this study with the exception of mother's aspiration or his perception of it. Girls, particularly white girls, whose best friends do not plan to go to college are very unlikely to plan to attend college themselves. Less than one-third of the white girls and slightly over a third of the Negro girls in this subgroup plan to attend college.

Measures of School Context - Since best friends' plans seem to be closely associated with subject's plans, it seems worthwhile to look at the effects of behavior of a more extended group of peers on subject's behavior. The more extended group of peers is the student body of the school which the subject attends. There are no data available from the larger study on which this analysis depends which would describe the attitudes and values of the student bodies of the schools attended by subjects in this sample. However, the report from the principals did include some estimates of student body characteristics which might serve to indicate the sort of climate or student-body composition of that school. These include the principal's estimate of (1) the percent of high school graduates who go on to college—for schools with twelfth grade, (2) the percent of boys who entered the tenth grade in 1962 who dropped out of school before October, 1965 (schools having grades 10 through 12), and (3) the percent Negro in the school (all schools).

There is some relationship between subject's plan and percent of high school graduates going on to college in his school. If he attends a school in which more than half of the graduates go on to college, the chances that he will have college plans are almost two out of three; if it is a school in which less than half of the graduates go on to college, the chances drop to about four out of nine that he will have college plans. There is little difference by race and sex in the degree of association between subject's plans and percent going to college in his school.

Although the relationships are in the anticipated direction, there are no statistically significant relationships between college plans of subjects and either percent of dropouts or percent of Negroes in the school. However, these variables are included as controls in the later analysis to be sure that there is no evidence of interaction between them and mother's aspiration on subject's plans.

Residence - Although there is little relationship between subject's plans and characteristics of the school he attends as measured in this study, it is possible that the character of the larger community in which he resides could affect his level of aspiration. Two aspects of community of residence are considered in this study. One of these is the region in which he resides; the other is residence in the central city or ring of a metropolitan area or residence outside a metropolitan area. According to the literature cited in the previous chapters, one would expect levels of aspiration to be higher in the more urban places of the more industrialized areas of the North or West and lower in the more rural places of the less industrialized region, the South.

Although the differences by region are relatively small, the results fit the expectation. Students in the South have the lowest level of aspiration; 46.6 percent want to go to college. Over half (51.9%) of the students in the North plan to attend college. In the West, 65 percent of the students plan to attend college. There are differences by race and sex, particularly in the North. In the North over 57 percent of the whites expect to attend college while only 45 percent of the Negroes plan to go to college. In the South there is no difference between white and Negro females: 48 percent intend to go to college. There is a race difference for males, however, 56 percent of Southern white boys, but only 43 percent of Southern Negro boys plan to attend college. There is little difference by sex or race in the West: 68 percent of the white males, 61 percent of the white females, 64 percent of the Negro males and 60 percent of the Negro females want to go to college.

There is some difference in plans by residence relative to location in or out of a metropolitan area. About 56 percent of youths living in the central city or the ring of a Standard Metropolitan Statistical Area plan to attend college. Only 46 percent of those living outside of a metropolitan area plan to attend college.

The effects of region and metropolitan residence are not strictly additive as may be seen when college-plans rates for subgroups described by crossclassification of these two characteristics are compared. (See Table 4B). Subjects living in the central cities of the North have lower rates than those living in the metropolitan rings while subjects living in the central cities of the South and West have higher rates than those living in the rings. However, subjects living outside metropolitan areas have lower rates within each of the three regions.

None of the aforementioned attributes or variables is as good a predictor of college plans as mother's educational expectation for the child. The single exception is subject's perception of mother's educational aspiration for the child, and then only if cases with no answer or "don't know" mother's aspiration are excluded from the analysis. It will subsequently be shown that there is some divergence between the amount of education that the subject thinks his mother wants him to have and the amount of education that his mother indicates that she really expects him to have.

Detailed Subject Plans by Mother Expectations

All Cases - Since the categories for subject's plans and mother's expectations differ, some of the correspondence between plans and expectations may be masked. Nevertheless, the general correspondence between subject's plans and mother's expectations are apparent in the first part of Table 5. The correspondence is particularly apparent in the upper-right corner of the table where both child and mother indicate graduate training. Two-thirds of the children whose mothers expect them to go to graduate school expect to go to graduate school themselves. Another point of agreement is where parent and child share expectations that the child will go to a junior college. Curiously enough, there is very little correspondence between no answer for mother and no answer for subject. That is, only 6 percent of the youths who did not answer had mothers that did not answer and only 3 percent of the mothers who did not answer had children who did not answer.

A major feature of this table is the absence of cases in the upper-left corner. That is, there are very few youths who expect to go to college whose mothers do not expect them to go. On the other hand, there are appreciable proportions of youths

Table 5

DETAILED SUBJECT'S PLAN BY DETAILED MOTHER'S EXPECTATION, RACE AND SEX

Subject's Educational Plan	Total	Mother's Educational Expectation						
		No Answer	Not Finish H. S.	Finish High School	2 yr. Jr. Col.	Part Way 4 Yr. Col.	Grad. 4 Yr. Col.	More Than 4 Years
				All Cases				
Total	100.0%	100.1%	100.0%	99.9%	100.0%	100.1%	100.0%	100.1%
Senior College & Prof. or Grad. Sch.	12.3	7.0	.4	.9	1.3	9.1	20.4	53.5
Jr., Sr. College & Prof. or Grad Sch.	5.1	1.5	.0	1.4	5.5	7.4	7.1	13.0
Attend a Sr. College	16.5	3.5	1.9	2.6	2.4	27.7	37.3	11.9
Attend Jr. & Sr. Col.	8.2	4.9	1.8	3.3	11.6	15.6	12.2	4.6
Attend a Jr. College	10.4	9.2	5.2	6.5	43.0	9.0	3.9	1.5
Trade School; No Col.	9.4	3.7	9.9	18.3	12.4	6.8	2.3	.2
No Post High School	16.1	48.7	58.6	34.3	4.5	3.8	1.9	2.5
Don't Know	20.8	18.8	22.2	30.8	18.3	19.4	14.1	12.5
No Answer	1.2	2.8	.0	1.8	1.0	1.3	.8	.4
Wtd. N (**thousands**)	**13,484**	361	371	4,533	1,838	781	4,538	1,060

Table 5 (continued)

DETAILED SUBJECT'S PLAN BY DETAILED MOTHER'S EXPECTATION RACE AND SEX

Subject's Educational Plan	Total	Mother's Educational Expectation						
		No Answer	Not Finish H. S.	Finish High School	2 Yr. Jr. Col.	Part Way 4 Yr. Col.	Grad. 4 Yr. Col.	More Than 4 Years
				White Males				
Total	100.0%	100.1%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%
Senior College & Prof. or Grad. Sch.	15.6	8.4	.9	.9	.9	10.2	22.3	55.0
Jr., Sr. College & Prof. or Grad Sch.	6.1	1.1	.0	1.4	6.3	9.3	7.4	14.4
Attend a Sr. College	16.6	5.3	.9	2.7	2.0	29.6	34.0	10.8
Attend a Jr. & Sr. Col.	8.3	3.3	.9	3.0	14.5	14.9	12.0	3.8
Attend a Jr. College	10.6	13.4	3.5	7.6	47.5	9.5	4.7	1.0
Trade School; No Col.	6.6	1.0	13.9	14.7	8.7	4.1	1.9	.0
No Post High School	14.1	42.7	59.3	34.7	3.2	2.6	1.4	1.2
Don't Know	20.8	20.6	20.5	33.2	15.9	19.8	15.1	13.4
No Answer	1.3	4.3	.0	1.8	1.1	.0	1.2	.4
Wtd. N (**thousands**)	6,150	158	182	1,777	729	333	2,276	695

Table 5 (continued)

DETAILED SUBJECT'S PLAN BY DETAILED MOTHER'S EXPECTATION RACE AND SEX

Subject's Educational Plan	Total	Mother's Educational Espectation						
		No Answer	Not Finish H. S.	Finish High School	2 Yr. Jr. Col.	Part Way 4 Yr. Col.	Grad. 4 Yr. Col.	More Than 4 Years
				White Females				
Total	100.0%	100.1%	100.1%	99.9%	100.0%	100.1%	100.0%	100.1%
Senior College & Prof. or Grad. Sch.	9.6	8.0	.0	.9	1.7	8.3	19.2	53.4
Jr., Sr. College & Prof. or Grad Sch.	2.8	2.5	.0	.6	3.9	4.6	4.0	8.1
Attend a Sr. College	18.0	2.1	2.9	1.7	2.9	30.1	46.0	19.2
Attend a Jr. & Sr. Col.	7.4	2.3	1.4	2.7	9.4	15.7	11.8	2.1
Attend a Jr. College	10.3	4.8	5.6	5.3	40.7	8.9	2.2	2.0
Trade School; No Col.	13.3	7.7	6.2	23.8	16.8	9.1	2.3	.8
No Post High School	18.6	54.2	75.4	36.0	5.7	5.2	2.2	4.0
Don't Know	19.0	17.4	8.6	27.2	17.7	17.8	12.1	9.9
No Answer	1.0	1.1	.0	1.7	1.2	.4	.2	.6
Wtd. N (thousands)	5,675	150	113	2,123	943	360	1,736	251

Table 5 (continued)

DETAILED SUBJECT'S PLAN BY DETAILED MOTHER'S EXPECTATION RACE AND SEX

Subject's Educational Plan	Total	Mother's Educational Expectation						
		No Answer	Not Finish H. S.	Finish High School	2 Yr. Jr. Col.	Part Way 4 Yr. Col.	Grad. 4 Yr. Col.	More Than 4 Years
				Negro Males				
Total	100.0%	100.1%	99.9%	99.8%	100.0%	99.9%	99.9%	100.0%
Senior College & Prof. or Grad. Sch.	9.9	.0	.0	2.3	.0	4.6	17.6	51.9
Jr., Sr. College & Prof. or Grad Sch.	10.0	.0	.0	5.0	12.4	15.8	16.9	13.1
Attend a Sr. College	8.7	8.3	4.0	4.8	.0	5.7	19.2	3.4
Attend a Jr. & Sr. Col.	12.5	58.0	4.0	6.5	14.5	16.6	18.2	11.2
Attend a Jr. College	10.6	.0	10.5	9.2	35.4	8.2	7.5	.0
Trade School; No Col.	3.6	.0	6.1	5.7	.0	4.6	2.3	.0
No Post High School	15.1	23.6	42.2	25.6	4.2	.0	4.0	2.8
Don't Know	26.8	.0	33.1	36.4	33.5	25.6	14.2	17.6
No Answer	2.8	10.2	.0	4.3	..0	18.8	.0	.0
Wtd. N (thousands)	837	16	47	341	86	37	258	53

Table 5 (Continued)

DETAILED SUBJECT'S PLAN BY DETAILED MOTHER'S EXPECTATION RACE AND SEX

Subject's Educational Plan	Total	Mother's Educational Expectation						
		No Answer	Not Finish H. S.	Finish High School	2 Yr. Jr. Col.	Part Way 4 Yr. Col.	Grad. 4 Yr. Col.	More Than 4 Years
	Negro Females							
Total	100.0%	100.0%	99.9%	100.0%	100.0%	99.9%	100.0%	100.1%
Senior College & Prof. or Grad. Sch.	8.5	.0	.0	.0	1.7	10.2	14.7	38.4
Jr., Sr. College & Prof. or Grad Sch.	9.0	.0	.0	3.5	9.7	8.8	15.3	16.7
Attend a Sr. College	12.2	.0	.0	6.2	2.1	14.5	26.7	2.4
Attend a Jr. & Sr. Col.	9.1	.0	5.2	5.4	9.0	18.6	11.2	17.7
Attend a Jr. College	8.9	12.9	6.3	5.9	36.6	7.5	4.6	6.3
Trade School; No Col.	8.6	.0	5.6	14.9	6.6	9.4	5.5	.0
No Post High School	15.4	62.1	14.3	29.2	2.2	3.5	1.3	10.1
Don't Know	27.5	25.0	68.5	34.9	32.1	24.3	18.9	8.5
No Answer	.8	.0	.0	.0	.0	3.1	1.8	.0
Wtd. N (thousands)	821	37	29	294	80	51	268	62

who intend to go to a trade school or who have not made up their minds about college whose mothers expect that they will go to college. Also, in the upper-right quadrant of the table, there are large percentages of students who disagree with their mothers as to how much higher education they expect to receive. This is particularly true for youths who want to attend graduate school but whose mothers only expect that they will get one to four years of college. The proportion is smaller for youths whose mothers expect that they will get more than four years of college but who themselves expect to get four years of college. This lack of agreement with regard to the number of years of college tends to refute the notion that there is collusion between parents and children on this item.

The differences between mothers and children with regard to levels of college or between finishing high school and going to a trade school or between indecision on the youth's part and mother's expectation should not be allowed to obscure the major feature of the table. This is the overwhelming correspondence between mother's expectations and child's plans to attend college. This is apparent when the levels of aspiration are collapsed to college or not college. Persons who are undecided are included with the noncollege planners. The college planners group includes both subjects who indicated that they definitely plan to go to college and those who indicated "yes, maybe," in regard to attending college. Therefore, the "don't know" group may be more appropriately placed with those who do not expect to attend college. The group who did not answer the question (1.2 percent) are included with the noncollege preference. It is assumed that nonrespondents to the plans question are more likely to be noncollege planners since one may assume that some nonresponse is due to low reading skill and it is known that intelligence and reading scores tend to be below average for those nonrespondents who have scores. Reducing the crosstabulation of mother's and child's aspirations to a four-fold table serves to increase the degree of association (Tau$_b$) from .29 for the ten by seven table to .36 for the two-by-two table. Although this gross categorization conceals variations in levels of aspiration, it is necessary because the small sample does not permit cross-classification with other control variables, particularly if race is maintained as a control variable throughout the analysis. The problem of having a sufficient number of cases in certain cells is aggravated in certain crossclassifications such as Negroes from families with over $10,000 annual income, whites attending predominantly Negro schools, etc.

It should be noted that inclusion of the nonresponse cases does not affect the degree of relationship between mother's expectation and subject's plans. When subjects whose mothers did not answer the plans question are excluded the size of Tau_b is .36 which is identical to the Tau_b when these cases are included.

Race Sex-Differences in Educational Plans - The general trend noted for the summary table can also be observed for each of the race-sex subgroups. That is, the over-all correspondence between youths and mothers with regard to planning college or not planning college holds within race-sex subgroups. There is somewhat greater discrepancy between the plans of Negro mothers and youths than between plans of white mothers and youths. (See lower-right quadrants of tables.) The discrepancy is most noticeable in the case of Negro youths who do not plan to attend college but whose mothers expect that they will go to a junior college or part way through a four year college. This is also true for white youths but the differences are not as marked.

The effect of mother's expectation that the youth will go on to obtain a professional school or graduate school education on youths plans for this level of aspiration is apparent in all of the tables. This effect is more noticeable for males than for females and more noticeable for whites than for Negroes. The effects appear to be additive. Conversely, mother's expectation that the youth will obtain no more than a high school education exerts a strong negative effect on subject's plans. In this case the effect is much stronger for whites than for Negroes. Low level of mother's aspiration has the least effect on Negro females and the most effect on white females.

The effect of Negro mothers not expecting their children to finish high school is to produce an unusually large fraction of Negro youths who indicate that they "don't know" whether or not they will attend college. Whether or not this uncertainty is due to crosspressure between parental realism and a general subcultural emphasis on education in the Negro subcommunity is a matter for conjecture.

Another feature of the tables is a greater dependence of Negro parents and youths (and white females) on junior colleges. Even Negro youths and their mothers who share aspirations for attending or graduating from a four-year college are more likely to envision beginning at a junior college. There seems to be greater agreement between white youths and their mothers on plans for no post high school education.

Mother's Educational Expectations and the Control Variables - In general, the relationships between mother's educational expectations for the subject and the control variables parallel those for subject's plans and the control variables. See Table 6. There is somewhat greater difference by race in that 62 percent of the white subjects have mothers who indicate that they expect them to go to college, whereas only 54 percent of the Negro subjects have mothers who expect them to go. (As compared with the plans of the students themselves where 53 percent of the whites and 50 percent of the Negroes expect to go to college.) There is about the same difference in mother's expectation by sex of student: 64 percent of the boys and 58 percent of the girls have mothers who expect them to go to college.

Mother's expectations vary by other characteristics of subject. There is a negative relationship between mother's aspiration and low I.Q. or age-grade retardation of subject. There is a positive relationship with subject's value of education as a success means and subject's perception that his mother wants him to go to college. The level of mother's expectation for the child is closely associated with the mother's own level of educational attainment. Only 40 percent of the subjects whose mothers did not attend high school have mothers who expect college for them as contrasted with 90 percent for subjects whose mothers went to college and who expect college for their children. Farm background, religion of mother and mother's value of education as a success means each have about the same relationship with mother's expectation as with child's plans. There is a somewhat closer correspondence between family occupational and income levels and mother's expectation than there is with subject's plans.

There is about the same relationship with best friend's plans. The nature of this connection is somewhat obscure. Whether mothers influence subject's peer choice or mothers respond to peer influence is unclear. One would not want to make a strong case for neighborhood or school context effect on mother's expectation since the relationships are about the same as those observed for subject's plans. The relationships are in the same direction and are of about the same magnitude.

The relationship of mother's plans to residence is also of about the same magnitude as that observed for subject's plans. In each type of community setting, college expectation rates for mothers are higher than subject's plans rates. This difference is slightly more marked in the rings of SMSA's of

Table 6A

Association Between Mother's Educational Expectation for Subject and Characteristics of the Subject, Mother and Family, Peers and School, and Community

Attribute or Variable	Tau_b
Characteristics of Subject	
Race	*
Sex	*
Age	.01
I.Q.	.11
Age-grade retardation	.06
Subject's value only**	.06
Perceived mother's expectation*	.40
Characteristics of Mother of Family	
Mother's education	.13
Mother's religion	.03
Mother's value and subject's value	.11
Occupation of household head	.07
Family income	.09
Characteristics of Peers of School	
Best friend's plans	.15
Percent go to college	.04
Percent boys dropout	*
Percent Negro	*
Characteristics of the Community	
Region only	.02
Residence only	.01
Region by residence	.02

*Less than .005; not significant

Table 6B

PERCENT OF STUDENTS WHOSE MOTHERS EXPECT THEM TO GO TO COLLEGE BY CHARACTERISTICS OF SUBJECT, MOTHER & FAMILY, PEERS, SCHOOL, AND COMMUNITY

Attribute or Variable	Percent with College Expectations
All Cases	61.0
Race	
White	61.9
Negro	53.9
Sex	
Boys	63.9
Girls	57.8
Age	
14-15	63.6
16-17	60.0
18-19	43.9
I.Q. Score	
Top 4 stanines	78.5
Bottom 4 stanines	47.0
No information	57.8
Age-Grade Retardation	
Retarded	30.9
Not retarded and NA	65.1
Subject: Best Way to succeed	
Get a college education	72.8
Other	46.4
Subject's Perception of Mother's Plans	
Finish high school or less	9.1
Go to college	81.4
Don't know mother's plan	30.2
No information	29.2
Mother's Education	
8th grade or less	39.9
9th-11th grade	50.4
12th grade	72.1
Any college	90.8
No information	26.5
Farm Residence	
Farm-child; Farm 1960	48.9
Farm-child; Nonfarm 1960	59.8
Nonfarm-child; Farm 1960	51.0
Nonfarm-child; Nonfarm 1960	66.8

Table 6B (continued)

PERCENT OF STUDENTS WHOSE MOTHERS EXPECT THEM TO GO TO COLLEGE BY CHARACTERISTICS OF SUBJECT, MOTHER & FAMILY, PEERS, SCHOOL, AND COMMUNITY

Mother's Religion	
Baptist	52.5
Large Protestant	68.7
Smaller Protestant	57.9
Roman Catholic	64.7
Jewish	92.2
Other	43.6
Subject & Mother:Success Means	
S:other; M:other	37.8
S:other; M:college education	58.6
S:college ed.; M:other	59.6
S:college ed.; M:college ed.	77.2
Occupation of Hsld. Head	
White collar	78.6
Blue collar	53.9
Farm	51.4
Unemployed	42.3
No information	64.9
Detailed Income	
<$4,000	43.0
$4,000-5,000	51.2
$6,000-9,999	65.1
$10,000 or more	83.5
No information	63.9

Table 6B (continued)

PERCENT OF STUDENTS WHOSE MOTHERS EXPECT THEM TO GO TO COLLEGE BY CHARACTERISTICS OF SUBJECT, MOTHER & FAMILY, PEERS, SCHOOL, AND COMMUNITY

Best Friends Plans	
Go to college	80.2
Not go to college and NA	42.1
Percent Go To College	
Less than 50 percent	54.7
50 percent or more	74.5
No 12th grade & NA	57.7
Percent Boys Dropping Out	
Less than 10 percent	66.6
10 percent or more	59.9
No 10th grade & NA	57.6
Percent Negro	
10 percent or less	63.2
11 percent or more	57.2
No information	58.3
Region by Residence	
North-central city SMSA	58.2
North-ring around SMSA	65.3
North-outside SMSA	57.5
South-central city SMSA	61.6
South-ring around SMSA	61.0
South-outside SMSA	49.4
West-central city of SMSA	76.8
West-ring around SMSA	71.8
West-outside SMSA	67.9

the North and South than elsewhere. Whether or not the high levels of expectation in these areas reflect selection of high-aspiration mothers into these areas or subcultural influence is a matter for conjecture.

Since both subject's plans and mother's expectations are observed to vary with the control variables in about the same way, it seems worthwhile to see if any correspondence that is observed between subject's plans and mother's expectations is a consequence of their correlation with one or more of the control factors. The next chapter will include analyses to determine the degree to which variation in subjects' plans by mothers' expectations are independent of the effects of other characteristics.

CHAPTER IV

INTERACTIONS OF MOTHER'S EXPECTATION, RACE, SEX AND THE CONTROL VARIABLES ON SUBJECT'S EDUCATIONAL PLANS

This chapter is concerned with the interrelationship between educational aspiration of subject, his mother's educational aspiration for him, race, sex and various characteristics of the subject himself, his family, and his school and community. The following analysis represents an attempt to see if the data conform to some simple additive model in which the "average" effects of mother's expectation, race, sex, and the other characteristics are additive with regard to educational plans of subject. Does each provide some additional increment to raise or lower subject's aspiration or do certain combinations of these attributes or variables serve to produce unusually high or low levels of aspiration in certain subgroups?

A step by step examination of the interrelationship between college plans of subject, mother's expectation, race, and sex may serve as introduction to the rest of the analysis presented in this chapter. Multiple classification of rates is employed to determine the "net" effects of mother's expectation, race and sex, on subject's plans. See the last four pages of Chapter II for an explanation of this statistical technique. The multiple classification adjusts the effect of each category of the independent or control variable for its relationship to all other variables in the system. It can be seen in Table 7B that adjustment of effects of mother's expectation on subject's plan by race and sex produces no change in deviations from the grand plans rate. The counter effect of correlation between race and sex and mother's expectation also has a negligible effect on deviations from the grand rate by race and sex. Since the model assumes the effects are additive, an expected rate for each subgroup described by mother's expectation, race, and sex is computed by adding the adjusted effects. Thus, the expected college-plans rate for white males whose mothers expect them to go to college is obtained by adding the deviation to the grand rate of 52.5 percent who plan for college. The effect of being white is -0.2 percent; the effect of being a male is +2.3 percent and the effect of mother expecting that he will go to college is 23.8 percent. Hence the expected college-plans rate for cases in this cell is 78.4 percent (52.5 - 0.2 + 2.3 + 23.8 = 78.4). The observed college-plans rate for this subgroup is 78.9 and the difference between the

Table 7A

ASSOCIATION* BETWEEN EDUCATIONAL PLANS OF SUBJECT AND MOTHER'S EDUCATIONAL EXPECTATION FOR SUBJECT BY RACE, SEX, AGE AND OTHER CHARACTERISTICS OF SUBJECT: INTELLIGENCE TEST SCORES, AGE-GRADE RETARDATION, EDUCATION AS A SUCCESS MEANS AND PERCEIVED MOTHER'S EXPECTATION

ATTRIBUTE OR VARIABLE	MALES		FEMALES	
	WHITES	NEGROES	WHITES	NEGROES
ALL CASES	.37	.21	.39	.25
Age				
14-15	.31	.18	.34	.24
16-17	.43	.27	.44	.23
18-19	.43	.10	.31	.46
Intelligence test score				
Top 4 stanines	.29	.29	.31	.24
Bottom 5 stanines	.35	.28	.35	.23
No information	.34	.16	.42	.26
Age-grade retardation				
Retarded	.46	.09	.11	.20
Not retarded	.33	.24	.39	.25
Subject: best way to success				
Education	.40	.14	.34	.22
Other	.35	.27	.37	.26
Perception of mother's plans				
Finish high school or less	.12	.10	.21	.12
Go to college	.15	.07	.20	.08
Don't know mother's plans	.26	.37	.21	.00n
No information	.10	.36	.14	.08

*Tau b

n indicates not statistically significant

Table 7B

UNADJUSTED AND ADJUSTED* EFFECT OF MOTHER'S EXPECTATION ON SUBJECT'S EDUCATIONAL PLANS WITH ADJUSTMENTS BY RACE, SEX, AGE, INTELLIGENCE TEST SCORE, AGE-GRADE RETARDATION, EDUCATION AS A SUCCESS MEANS AND PERCEIVED MOTHER'S EXPECTATION

Mother's Expectation	Deviations from Grand College Plans Rate: 52.5%						
	Unadjusted	Net: Race Sex	Net: Race Sex, Age	Net: Race Sex, I.Q.	Net: Race Sex, Retd.	Net: Race Sex, Means	Net: Race Sex, Perception
Go to college	24	24	.24	.25	.26	23	17
Other	- 37	- 37	-.37	- 39	- 40	- 35	- 27

*Adjusted by multiple classification

**Less than .01 percent.

expected and observed rates is +0.5 percent. The difference represents either error or interaction among the predictor characteristics on plans. Since the difference is small (less than one-half of a standard error) it is assumed to be either sampling or measurement error.

Expected and observed rates were obtained and compared for each of the remaining subgroups described by race, sex, and mother's aspiration. These rates and the differences between them are shown in Table 8. It can be seen that the additive model fits the data fairly well except that Negroes whose mothers expect them to attend college are slightly less likely to plan for college than the model predicts, while Negroes whose mothers do not expect them to attend college are slightly more likely to have college plans than the model predicts. Since the adjusted deviations are produced by multiple classification which is sensitive to the size of the subgroups as well as the direction of the zero order relationship, the consequences of being white relative to the other characteristics are governed in part by the preponderance of whites in the sample. Hence, one way to interpret the interactions for Negroes is that Negroes do not react to being male or female and having or not having a mother who wants one to attend college in the same way as whites when it comes to planning for college. The effects do not "add up" in the same way for Negroes and whites. The analysis which follows will involve comparisons between rates expected on the basis of a simple additive model and the rates observed for subgroups described by race, sex, mother's expectation and one other characteristic. Each of the characteristics of the subject will be considered first, followed by characteristics of the family, the school and the community.

Age - Although adjusting college plans rates by age, sex, and race has no effect on deviations from the grand-college plans rate (see column four of Table 7B), there are differences in the degree of relationship between subject's and mother's aspiration within the age-sex-race groups (see Table 7A). The relationship tends to be less in the younger age group and higher in the middle age group. Again the major interactions are observed for the numerically smaller Negro subgroups. One observes the same pattern within each of the age subgroups as that reported above. That is, Negro subjects whose mothers expect them to go to college are less likely to plan for college than the model predicts while those whose mothers do not expect them to go are more likely to plan for college than one would expect from the model. Negro

Table 8

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE

EDUCATIONAL EXPECTATION OF MOTHER AND	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Go to college	78.4	78.9	.5	80.2	73.6	-6.6	73.6	74.5	.9	75.4	70.0	-5.4
Other	17.4	16.0	-1.4	19.2	28.3	9.1	12.6	11.6	-1.0	14.4	19.4	5.0

*Expected from additive multiple classification model females in the oldest age group (a very small subgroup) provide the single exception to the pattern. (See Table 9)

Intelligence Test Score - Adjusting the effect of mother's expectation on subject's plans by I.Q., race and sex, produces a slight increase in adjusted deviations from the grand-plans rate (see Table 7B). There is no difference in degree of association between child and parent aspirations for Negroes, but there is slightly more association among child and parent aspirations for low-I.Q. whites and less association for high-I.Q. whites. The difference is mainly an artifact of the measure of association used. Tau_b represents improvement in predicting college plans by knowing mother's expectation over the prediction one would make for an individual knowing only the distribution of college plans. Such a high percentage of high-I.Q. white subjects plan to go to college (67 percent; see Table 4B) that one gets a fairly good prediction by knowing this marginal alone. Knowing mother's expectation can only assist in making predictions for a minority of the cases. Again, the major interactions are observed for Negroes, particularly bright Negro males who are more likely to plan for college than the additive model predicts. (see Table 10.) Negro females in the bottom five stanines of intelligence test scores are more likely than expected to plan for college. Since the departures from the model are primarily observed in the subgroups with the fewest cases, these departures could be more a consequence of measurement or sampling errors than of interaction. The problem of interpreting these results is complicated by having a large proportion of cases with no I.Q. test scores. Therefore, the analysis is repeated using age-grade retardation as a test variable.

Age-Grade Retardation - There is less correspondence between subject's plans and mother's expectation in the retarded group than in the nonretarded group except for white males. (see Table 7A.) The direction of the interaction for Negroes and for white females is for lower college-plans rates than expected for subjects whose mothers expect them to go to college and for slightly higher rates than expected for those whose mothers do not expect them to attend college. (see Table 11.) In general, major interactions are observed for the smallest subgroups. It should be noted that adjusting the effect of mother's expectation on college plans by retardation, race, and sex has the same effect as the adjustment by I.Q., race and sex. It serves to increase the size of the deviations by mother's expectation. (see Table 7B.)

Table 9

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND AGE

EDUCATIONAL EXPECTATION OF MOTHER AND AGE	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
14-15												
Go to college	78.2	75.0	-3.8	80.2	** 75.0	- 5.2	73.2	74.4	1.2	75.2	72.7	- 2.5
Other	17.4	16.5	- .9	19.4	32.4	13.0	12.4	14.8	2.4	14.4	23.2	8.8
16-17												
Go to college	79.2	83.5	4.3	81.2	74.1	- 7.1	74.2	75.7	1.5	76.2	64.4	-11.8
Other	18.4	15.8	-2.6	20.4	22.4	2.0	13.4	9.1	- 4.3	15.4	16.7	1.3
18-19												
Go to college	74.4	79.4	5.0	76.4	65.2	-11.2	69.4	53.5	-15.9	71.4	79.1	7.7
Other	13.6	14.4	.8	15.6	33.1	17.5	8.6	5.0	- 3.6	10.6	12.1	1.5

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 10

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND INTELLIGENCE TEST SCORE

EDUCATIONAL EXPECTATION OF MOTHER AND I.Q. SCORE	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Top 4 stanines											**	
Go to college	85.9	84.2	-1.7	89.0	100.0	11.1	79.3	76.3	-3.0	82.4	72.3	-10.1
Other	21.7	20.3	-1.4	24.8	65.6	40.8	15.1	14.1	-1.0	18.2	22.6	4.4
Bottom 5 stanines												
Go to college	76.8	73.1	-3.7	79.9	76.0	- 3.9	70.2	67.9	-2.3	73.3	77.4	4.1
Other	12.6	14.3	1.7	15.7	22.8	7.1	6.0	10.9	4.9	9.1	29.1	20.0
No information												
Go to college	79.3	76.7	-2.6	82.4	69.4	-13.0	72.7	76.3	3.6	75.8	66.6	- 9.2
Other	15.1	16.1	1.0	18.2	29.4	11.4	8.5	11.0	2.5	11.6	15.3	3.7

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 11

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER"S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND AGE-GRADE RETARDATION

EDUCATIONAL EXPECTATION OF MOTHER AND RETARDATION	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Retarded												
Go to college	77.2	** 81.9	4.7	79.4	60.6	-18.8	70.5	46.2	-24.3	72.7	72.2	- .5
Other	12.0	10.4	-1.6	14.2	30.2	16.0	5.3	13.2	7.9	7.5	23.7	16.2
Not retarded												
Go to college	81.6	78.8	-2.8	83.8	76.3	- 7.5	74.9	75.0	.1	77.1	69.8	- 7.3
Other	16.4	17.5	1.1	18.6	27.4	8.8	9.7	11.5	1.8	11.9	18.2	6.3

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Subject's Valuation of Education as a Success Means - There is greater association between mother's and child's aspirations in subgroups which choose some means other than getting a college education as the best way to get ahead in life. Again, as in the case of high-I.Q. subjects, the lower Tau_b's for the college-success-means subgroups is a consequence of the disproportionate marginals. (see Tables 4B and 7A.) White males provide the exception; in that group there is greater correspondence between parent and child plans. The interactions are confined to the Negro subgroups. Again, the general pattern of interaction by race is observed across Table 12. That is, Negroes whose mothers expect them to go to college are less likely to plan for college than expected; those whose mothers do not expect them to go are more likely to plan for college than expected. Looking at Table 7B, the effects of adjusting deviations in mother's expectation by choice of success means are minimal.

Subject's Perception of Mother's Plans - In this case, adjusting the effects of mother's expectation on college plans by what the subject thinks his mother's aspiration for him is has a marked effect on these deviations (Table 7B). Control by this variable markedly reduces the relationship between subject's plans and mother's expectation--just as one might expect (Table 7A). Nevertheless, although the relationship is attenuated, it does not disappear.

Although the interactions are confined to the smaller subgroups, the pattern is quite interesting. The above mentioned interaction between mother's expectation and race continues to hold for subjects who think their mothers want them to go to college; those whose mothers indicate they expect them to go are less likely to have college plans than the model predicts, while the interaction is in the opposite direction for those whose mothers do not expect them to go. This is also true for Negro boys who think their mother expects them to finish high school or less. In the case of Negro girls in this subgroup, the interaction is small but in the direction of higher-than-expected college-plans rates. White males who think that their mothers expect them to finish high school or less are even less likely to expect to finish college than the model predicts. There are some rather sizeable interactions for the small subgroups of Negroes who don't know their mother's aspiration for them. Whether this is a consequence of lack of communication in the family or through the questionnaire, or due to some unmeasured condition such as absence of mother from the family is a matter for speculation. **(Table 13)** "Mother's

Table 12

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND SUBJECT'S VALUE OF EDUCATION

EDUCATIONAL EXPECTATION OF MOTHER AND SUBJECT'S VALUE	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Other best way												
Go to college	71.5	70.4	-1.1	72.7	** 76.6	3.9	66.7	67.2	.5	67.9	66.4	-1.5
Other	13.6	11.9	-1.7	14.8	22.9	8.1	8.8	8.7	- .1	10.0	16.3	6.3
Educ. best way												
Go to college	82.2	83.4	1.2	83.4	72.5	-10.9	77.4	78.8	1.4	78.6	71.9	-6.7
Other	24.3	23.9	- .4	25.5	34.7	9.2	19.5	16.5	-3.0	20.7	23.1	2.4

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 13

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND PERCEPTION OF MOTHER'S PLANS

EDUCATIONAL EXPECTATION OF MOTHER AND PERCEPTION OF MOTHER'S PLANS	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Finish HS or less		**										
Go to college	52.2	39.5	-12.7	53.9	51.4	- 2.5	47.7	48.4	.7	49.4	55.2	5.8
Other	7.7	5.7	- 2.0	9.4	16.4	7.0	3.2	4.1	.9	4.9	10.5	5.6
Go to college												
Go to college	80.9	81.8	.9	82.6	75.2	- 7.4	76.4	77.5	1.1	78.1	74.5	- 3.6
Other	36.4	35.3	- 1.1	38.1	48.0	9.9	31.9	25.1	- 6.8	33.6	42.1	8.5
Don't know												
Go to college	58.2	61.2	3.0	59.9	82.7	22.8	53.7	53.6	- .1	55.4	8.7	-46.7
Other	13.7	11.5	- 2.1	15.4	14.7	- .7	9.2	11.2	2.0	10.9	9.9	- 1.0
No information												
Go to college	43.1	24.6	-18.5	44.8	60.8	16.0	38.6	21.9	-16.7	40.3	10.6	-29.7
Other	0.0	4.2	4.2	.3	6.0	5.7	0.0	1.2	1.2	0.0	0.0	0.0

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

expectation" in the latter case may actually be that of a grandparent or other mother substitute. It should be noted, however, that the subject's questionnaire calls for the subject's perception of plans of either the mother or "person taking your mother's place." In this instance, as in that of "no answer" concerning what the subject thinks his mother's aspiration is, the numbers of cases in the subgroups are quite small. Therefore, it would not pay to make too much over these interactions even though they are sizeable.

An overview of the examination for interaction thus far might lead one to conclude that there is interaction between mother's expectation, race, and sex on college plans which tends to hold up when other characteristics are controlled. The next analysis by partialing involves characteristics of the mother and family.

Educational Attainment of the Mother - The relationship between mother's expectation and subject's plans varies by the educational attainment of the mother. (see Tables 14A, 14B, and 15.) In general, the effects of mother's expectation and mother's educational attainment on college plans are additive. The effect of adjusting deviations for expectation by attainment are minimal. See Table 14B. Again, the general pattern of interaction between mother's expectation and race on college plans in which being a Negro "dampens" the effect of mother's expectation holds within subgroups described by various levels of mother's educational attainment. Major deviations from the expected rates occur in those subgroups where the mother has attended college one or more years. In the case of whites, the actual rates are lower than the expected rates while the reverse is true for Negro males and females. Rates for Negro boys and girls having college-educated mothers are even higher than the high rates the additive model predicts. They are higher than the rates for whites in the same mother-attainment category. Again, the larger differences between actual and expected rates are observed in the smaller subgroups.

Farm Background of Mother - The correspondence between mother's expectations and child's plans varies within subgroups described by farm background of mother, race, and sex. (see Tables 14A, 14B, and 16.) The relationship is strongest in the subgroups of white boys and girls whose mother grew up on a farm and also lived on a farm in 1960. The relationship is also stronger for both white and Negro subjects whose mothers indicate nonfarm residence both during their youth and in 1960. Examination of observed rates shown in Table 16 reveals that the major difference in subject's aspiration by mother's

Table 14A

ASSOCIATION* BETWEEN EDUCATIONAL PLANS OF SUBJECT AND MOTHER'S EDUCATIONAL EXPECTATION FOR SUBJECT BY SEX, RACE AND CHARACTERISTICS OF MOTHER AND FAMILY: MOTHER'S EDUCATION, FARM BACKGROUND, RELIGION, VALUE OF EDUCATION AS SUCCESS MEANS, OCCUPATION OF HOUSEHOLD HEAD AND FAMILY INCOME

ATTRIBUTE OR VARIABLE	MALES		FEMALES	
	WHITES	NEGROES	WHITES	NEGROES
ALL CASES	.37	.21	.39	.25
Mother's Education				
8th grade or less	.31	.21	.40	.22
9th - 11th grade	.42	.19	.36	.28
12th grade	.29	.17	.28	.10
Any college	.20	.50	.28	.22
No information	.38	.05	.28	.19
Farm Residence				
Farm-child; farm - 1960	.42	.05	.46	.28
Farm-child; nonfarm - 1960	.33	.11	.38	.18
Nonfarm-child; farm - 1960	.20	**	.37	**
Nonfarm-child; nonfarm - 1960	.38	.38	.37	.29
No information	.10	.04	.17	.01
Mother's Religion				
Baptist	.39	.23	.39	.20
Large Protestant	.34	.24	.36	.18
Smaller Protestant	.41	.04	.38	.33
Roman Catholic	.34	.36	.38	.37
Jewish	.13	none	.34	none
Other	.32	.03	.35	.58
Education as a Success Means				
Subj.-other; mother-other	.35	.27	.37	.38
Subj.-other; mother-education	.34	.28	.35	.15
Subj.-education; mother-other	.22	.07	.33	.30
Subject and mother-education	.31	.18	.34	.17
Occupation of Household Head				
White collar	.26	.34	.36	.02
Blue collar	.38	.25	.37	.20
Farm	.37	.19	.39	.46
Unemployed	.41	.01	.24	.34
No information	.02	1.00	.57	.04
Detailed Income				
< $4,000	.41	.10	.31	.28
$4,000 - $5,999	.44	.34	.37	.20
$6,000 - $9,999	.32	.44	.36	.04
$10,000 or more	.22	.30	.27	.48
No information	.28	.54	.37	.52

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*Tau_b

Table 14B

UNADJUSTED AND ADJUSTED* EFFECT OF MOTHER'S EXPECTATION ON SUBJECT'S EDUCATIONAL PLANS WITH ADJUSTMENTS BY RACE, SEX, MOTHER'S EDUCATION, FARM BACKGROUND, RELIGION, AND VALUE OF EDUCATION AS A SUCCESS MEANS, OCCUPATION OF HOUSEHOLD HEAD AND FAMILY INCOME

	Deviation from Grand College Plans Rate: 52.5%						
Mother's Expectation	Unadjusted	Net: Race, Sex, M. Education	Net: Race, Sex, Farm Background	Net: Race, Sex, M. Religion	Net: Race, Sex, Value of Educ.	Net: Race, Sex, H.H. Occupation	Net: Race, Sex, Family Income
Go to college	24	22	24	24	23	23	23
Other	-37	-35	-37	-37	-35	-37	-36

*Adjusted by multiple classification

Table 15

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND MOTHER'S EDUCATION

EDUCATIONAL EXPECTATION OF MOTHER AND MOTHER'S EDUCATION	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
8th grade or less					**							
Go to college	69.9	66.8	- 3.1	74.6	65.7	- 8.9	64.9	68.8	3.9	69.6	63.4	- 6.2
Other	12.3	13.1	.8	17.0	20.6	3.6	7.3	8.0	.7	12.0	17.6	5.6
9th-11th grade												
Go to college	72.9	77.3	4.4	77.6	73.8	- 3.8	67.9	66.2	- 1.7	72.6	69.1	- 3.5
Other	15.3	12.2	- 3.1	20.0	30.2	10.2	10.3	8.8	- 1.5	15.0	16.9	1.9
12th grade												
Go to college	79.1	80.1	1.0	83.8	77.9	- 5.9	74.1	73.6	- .5	78.8	70.7	- 8.1
Other	21.5	20.5	- 1.0	26.2	37.0	10.8	16.5	16.5	0.0	21.2	34.7	13.5
Any college												
Go to college	86.3	83.9	- 2.4	91.0	100.0	9.0	81.3	85.5	4.2	86.0	93.3	7.3
Other	28.7	18.3	-10.4	33.4	47.6	14.2	23.7	9.7	-14.0	30.4	47.6	17.2
No information												
Go to college	80.8	91.4	10.6	85.5	69.7	-15.8	75.8	73.1	- 2.7	80.5	58.4	-22.1
Other	23.2	22.2	- 1.0	27.9	43.8	15.9	18.2	17.8	- .4	24.9	13.1	-11.8

*Expected from additive multiple classification model

**Underline indicates estimated base of rate is less than 400,000.

Table 16

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND FARM BACKGROUND OF MOTHER

EDUCATIONAL EXPECTATION OF MOTHER AND FARM RESIDENCE	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Farm-farm												
Go to college	74.7	76.2**	1.5	76.9	46.5	-30.4	69.8	72.9	3.1	72.1	76.4	4.3
Other	13.9	11.4	- 2.5	16.2	23.9	7.7	9.1	7.2	- 1.9	11.4	22.4	11.0
Farm-City												
Go to college	76.6	76.1	- .5	78.9	71.4	- 7.5	71.8	71.2	- .6	74.1	68.5	- 5.6
Other	15.9	16.3	.4	18.2	38.0	19.8	11.1	8.9	- 2.2	13.4	26.3	12.9
City-farm												
Go to college	74.4	66.2	- 8.2	76.7	--	--	69.6	70.2	.6	71.9	47.2	-24.7
Other	13.7	21.8	8.1	16.0	0.0	--	8.9	10.0	1.1	71.2	--	--
City-city												
Go to college	79.4	80.7	1.3	81.7	83.4	1.7	74.6	76.4	1.8	76.9	70.0	- 6.9
Other	18.7	14.8	- 3.9	21.0	22.1	1.1	13.9	13.1	- .8	16.2	14.2	- 2.0
No information												
Go to college	80.1	62.4	-17.7	82.4	53.4	-29.0	75.5	63.4	-11.9	77.6	0.0	--
Other	19.4	25.0	5.6	21.7	34.2	12.5	14.8	18.0	3.4	16.9	15.5	- 1.4

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

aspiration according to farm background is that observed between subgroups of Negro boys whose mothers expect them to go to college. Less than half of the Negro boys with farm mothers plan to go to college even if their mother expects that they will go as contrasted with 83 percent of the Negro boys with city mothers. Subjects whose mothers are rural-to-urban migrants tend to resemble those whose mothers both grew up in the city and lived in the city in 1960. Adjusting the effect of mother's expectation on college plans by farm background produces no difference from the unadjusted effect. (See Table 14B and Table 19)

Mother's Religion - Control by mother's religion does little to change the relationship between mother's expectation and child's aspiration. (See Table 14A.) There is no change in deviations from the grand college-plans rate by mother's expectation. (See Table 14B.) If one examines the interactions shown in Table 17, it can be seen that the interactions are confined to the small subgroups. There are few Jews in the sample and almost none of these have mothers who do not expect them to go to college. There are no Negroes with Jewish mothers and few Negroes with Catholic mothers. Hence, the analysis was repeated using only Protestants. (See Table 18.) It can be seen in both Tables 17 and 18 that the major interactions are in the same direction as that noted above for race and sex. In each category of religion, those Negroes whose mother do not expect them to attend college are more likely than expected to plan to attend college while the reverse is true of Negroes whose mothers identify with the smaller Protestant denominations and sects.

Crossclassification of Subject's and Mother's Value of Education as a Success Means - There is a slight tendency to observe greater association between subject's and mother's aspiration in those subgroups in which subjects and mothers agree either that getting a college education is the best way to succeed or, conversely, that some means other than getting a college education are best means to succeed. Adjusting the effects of mother's expectation on subject's plans by subject's and mother's values produces little change from the unadjusted effects. (See Table 14B.)

Again, there is the general pattern of interaction between mother's expectation and race reported in the previous comparisons which appears in subgroups described by crossclassification of subject's and mother's valuation of education as a success means. One minor aberration of that pattern is observed in the Negro subgroups in which both subject and

Table 17

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND RELIGION

EDUCATIONAL EXPECTATION OF MOTHER AND RELIGION	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Baptist												
Go to college	72.9	73.3	.8	77.6	** 71.1	- 6.5	68.9	70.0	1.1	73.6	63.7	- 9.9
Other	12.7	10.6	- 2.1	17.4	23.2	5.8	8.7	9.5	.8	13.4	19.0	5.6
Large Protestant												
Go to college	79.1	79.5	.4	83.8	84.7	.9	75.1	75.1	0.0	79.8	74.6	- 5.2
Other	18.9	16.1	- 2.8	23.6	37.6	14.0	14.9	11.9	- 3.0	19.6	30.4	10.8
Small Protestant												
Go to college	76.3	75.8	- .5	81.0	78.3	- 2.7	72.3	73.4	1.1	77.0	84.7	7.7
Other	16.1	10.9	- 5.2	20.8	55.6	34.8	12.1	11.5	- .6	16.8	27.7	10.9
Roman Catholic												
Go to college	78.5	79.6	1.1	83.2	83.6	.4	75.1	73.9	- 1.2	79.2	81.9	2.7
Other	18.3	17.8	- .5	23.0	23.7	.7	14.3	10.7	- 3.6	19.0	18.5	- .5
Jewish												
Go to college	93.4	93.3	- .1	98.1	--	--	89.4	89.0	- .4	94.1	--	--
Other	33.2	50.5	17.3	37.9	--	--	29.2	11.2	-18.0	33.9	--	--
Other												
Go to college	80.4	80.0	- .4	85.1	58.0	-27.1	76.4	74.7	- 1.7	81.1	85.8	4.7
Other	20.2	23.3	3.1	24.9	39.1	14.2	16.2	15.6	- 1.6	20.9	7.8	-13.1

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 18

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND RELIGIOUS FUNDAMENTALISM

EDUCATIONAL EXPECTATION OF MOTHER AND REL. FUNDMTL.	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Baptist												
Go to college	71.9	73.7	1.3	77.2	71.1**	- 6.1	68.0	70.0	2.0	73.3	63.7	- 9.6
Other	12.2	10.6	-1.6	17.5	23.2	5.7	8.3	9.5	1.2	13.6	19.0	5.4
Other Small P.												
Go to college	75.4	75.8	.4	81.0	78.3	- 2.7	71.8	73.4	1.6	77.1	84.7	7.6
Other	16.0	10.9	-5.1	21.3	55.6	34.3	12.1	11.5	- .6	17.4	27.7	10.3
Large Prot.												
Go to college	78.4	79.5	1.1	83.1	84.7	1.6	74.5	75.1	.6	79.8	74.6	- 5.2
Other	18.7	16.1	--2.6	24.0	37.6	13.6	14.8	11.9	-2.9	20.0	30.4	10.4

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 19

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND SUBJECT'S AND MOTHER'S VALUES

EDUCATIONAL EXPECTATION OF MOTHER AND SUBJECT'S AND MOTHER'S VALUES	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Other-other												
Go to college	71.7	71.2	- .5	73.0	** 78.7	5.7	67.0	64.9	-2.1	68.3	76.4	8.1
Other	13.6	13.1	- .5	14.9	23.9	9.0	8.9	7.9	-1.0	10.2	14.3	4.1
Other-educ.												
Go to college	71.4	69.8	-1.6	72.7	73.4	.7	66.7	69.4	2.7	68.0	60.1	- 7.9
Other	13.3	9.5	-3.8	14.6	20.5	5.9	8.6	10.2	1.6	9.9	20.6	10.7
Educ.-other												
Go to college	82.5	80.1	-2.4	83.8	72.8	-11.0	77.8	77.6	- .2	79.1	59.1	-20.0
Other	24.6	32.2	7.6	25.7	45.8	20.1	19.7	20.1	.4	21.0	7.7	-13.3
Educ.-educ.												
Go to college	82.1	84.1	2.0	83.4	72.5	-10.9	77.4	79.2	1.8	78.7	74.5	- 3.8
Other	24.2	19.6	-4.6	25.3	27.5	2.2	19.3	14.6	-4.7	20.6	30.5	9.9

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

mother pick some means other than education. In these subgroups subjects whose mothers expect them to go to college are more likely to have college plans than the additive model predicts. Again, it is necessary to note that this could be some artifact of sampling fluctuation given the small numbers in these subgroups.

Occupation of Household Head - There is some variation in the parent-child aspiration relationship from one category of occupational level to another. (See Table 14A.) There is virtually no difference between the unadjusted and adjusted effects of mother's expectation on subject's plans when occupational level is entered into the adjustment. (See Table 14B.) Again, the marked departures from the additive model are confined to the smaller subgroups (Table 20). There are so few cases in which the occupation of the household head is either farm, or the head is unemployed, or occupation is unknown that it would be best to confine the discussion to white-collar and blue-collar (manual) occupational levels. It might be worthwhile to mention that the deviations from expectations in the farm-occupation subgroups are somewhat similar to those in which the mother has a farm background.

The major interactions are observed in the white-collar, age-sex groups. Both Negro males and white females whose mothers do not expect them to attend college are less likely to plan to go to college than the model expects. Negro females in this category of occupation are more likely to plan for college than the model expects. Blue-collar Negro females whose mothers expect them to go to college are less likely to have college plans than the model expects.

Family Income - The relationship between parent and child aspirations varies across subgroups described by annual income of family, race, and sex (Table 14A.). The change in effects of mother's expectation on child's plans which results from adding family income to the adjustment procedure is a small one. (See Table 14B.) Again, the interactions are primarily confined to the Negro subgroups. (See Table 21.) The interaction between mother's plans and race which has been noted in many of the above analyses is also observed to hold for Negroes in the lower income subgroups. There are few Negroes in the sample from the higher income groups. It is interesting to note in passing that none of the Negroes in the sample from homes where the annual income is $10,000 or more have mothers who do not expect them to attend college. Negroes in this income group are slightly more likely to plan for college than the model suggests.

Table 20

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND OCCUPATION OF HOUSEHOLD HEAD

EDUCATIONAL EXPECTATION OF MOTHER AND OCCUPATION	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
White collar												
Go to college	83.1	83.1	0.0	87.2	79.7**	- 7.5	78.3	80.1	1.8	80.0	87.4	5.0
Other	24.2	25.0	.8	28.3	8.8	-19.5	19.4	13.7	- 5.7	23.5	67.6	44.1
Blue collar												
Go to college	74.6	76.0	1.4	78.7	79.1	.4	69.8	70.2	.4	73.9	62.5	-11.4
Other	15.7	13.6	- 2.1	19.8	28.9	9.1	10.9	10.3	- .6	15.0	18.6	3.6
Farm												
Go to college	73.1	75.0	1.9	77.2	60.0	-17.2	68.3	69.6	1.3	72.4	78.6	6.2
Other	14.2	13.6	- .6	18.3	17.4	- .9	9.4	9.9	.5	13.5	10.7	- 2.8
Unemployed												
Go to college	73.7	74.2	.5	77.8	50.4	-27.4	68.9	64.0	- 4.9	73.0	74.1	1.1
Other	14.8	11.2	- 3.6	26.7	39.1	12.4	17.2	16.1	- 1.1	14.1	15.2	1.1
No information												
Go to college	80.2	63.5	-16.7	84.3	100.0	15.7	75.4	79.1	3.7	79.5	100.0	20.5
Other	21.3	47.6	26.3	25.4	0.0	25.4	16.5	0.0	16.5	20.6	79.6	59.0

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 21

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND DETAILED INCOME

EDUCATIONAL EXPECTATION OF MOTHER AND INCOME	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
$4000												
Go to college	72.9	74.9	2.0	77.5	62.1**	-15.6	68.0	65.1	-2.9	72.9	69.9	- 3.0
Other	13.7	11.3	-2.4	18.5	30.5	12.0	8.7	10.9	2.2	13.5	17.4	3.9
$4000-$5999												
Go to college	74.9	79.3	4.4	79.7	79.9	.2	70.0	68.7	-1.3	74.9	69.3	- 5.6
Other	15.7	12.7	-3.0	20.5	21.5	1.0	10.7	9.3	-1.4	15.5	24.8	9.3
$6000-$9999												
Go to college	78.5	80.1	1.6	83.3	89.7	6.4	73.6	73.4	- .2	78.5	54.9	-23.6
Other	19.3	20.6	1.3	24.1	24.4	.3	14.3	11.8	-2.5	19.1	32.5	13.4
$10,000 +												
Go to college	81.9	79.7	-2.2	86.7	88.4	1.7	77.0	80.6	3.6	81.9	86.2	4.3
Other	22.7	19.7	-3.0	27.5	--	--	17.7	15.1	-2.6	22.5	--	--
No information												
Go to college	81.0	76.9	-4.1	85.8	100.0	14.2	76.1	78.6	2.5	81.0	85.4	4.4
Other	21.8	21.4	- .4	26.5	36.3	9.7	16.8	16.7	- .1	21.6	11.8	- 9.8

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

A summary of results involving characteristics of the mother and family must include two main trends. First, the relationship between mother's expectation and subject's plan is relatively independent of characteristics of the mother and family as they are measured in this study. Second, the interaction between mother's aspiration for the child and race which was found to be relatively independent of characteristics of the individual is also relatively independent of characteristics of the mother herself and the family. The next analyses involve peer aspiration and characteristics of the school.

Best Friend's Plans - There is some variation in the mother-child aspiration relationship by best friend's educational plans. (See Tables 22A and B.) Deviations from the grand rate of college plans by mother's expectation are somewhat attenuated when adjusted by best friend's plans. The effects of mother's expectation and best friend's plans are additive (Table 23). Interaction is limited to the previously reported pattern between race and mother's expectation. This was particularly noticeable for Negro males whose best friends plan to go to college.

School Characteristic: Percent of Graduates Who Went to College -

The relationship between subject's plans and mother's expectation differs by college-going rate for the subject's school, race, and sex (Table 22A). However, adjusting deviations in plans according to mother's expectation by the college-going rate fails to produce any change in the deviations (Table 22B). There are some interactions for Negroes and for white boys. (See Table 24). White boys whose mothers expect them to go to college who are enrolled in schools where less than half of the graduates go to college are more likely to have college plans than the model expects. Negro boys in schools where more than half of the graduates go to college are more likely to have college plans than the model expects. Negro girls in these schools whose mothers do not expect them to go to college are more likely to have college plans than expected. In fact, Negroes in these schools are more likely to have college plans than whites in schools where more than half of the graduates go on to college. One would like to have more cases of Negroes in schools with high college-going rates to be sure of this trend, but it looks like there is some context effect on college plans as they are affected by mothers' expectations. Mother's expectations and best friend's plans override the effect of percent going on to college on subject's plans. (See Table 25)

Table 22A

ASSOCIATION* BETWEEN EDUCATIONAL PLANS OF SUBJECT AND MOTHER'S EDUCATIONAL EXPECTATION FOR SUBJECT BY SEX, RACE AND CHARACTERISTICS OF PEERS OR SCHOOL: BEST FRIEND'S EDUCATIONAL PLANS, PERCENT IN SCHOOL WHO GO ON TO COLLEGE, PERCENT OF BOYS WHO DROP OUT, AND PERCENT IN SCHOOL WHO ARE NEGRO

ATTRIBUTE OR VARIABLE	MALES		FEMALES	
	WHITES	NEGROES	WHITES	NEGROES
ALL CASES	.37	.21	.39	.25
Best Friend's Plans				
Go to college	.22	.07	.26	.16
Not go to college + NA	.33	.19	.36	.24
Percent Going to College				
Less than 50 percent	.47	.28	.39	.27
50 percent or more	.28	.36	.36	.17
No 12th grade; NA	.32	.15	.39	.25
Percent Boys Dropping Out				
Less than 10 percent	.35	.51	.37	.21
10 percent or more	.44	.32	.40	.27
No 10th grade; NA	.34	.12	.40	.26
Percent Negro				
10 percent or less	.38	.11	.37	.33
11 percent or more	.37	.32	.39	.23
No information	.33	.13	.43	.26

Table 22B

UNADJUSTED AND ADJUSTED* EFFECT OF MOTHER'S EXPECTATION ON SUBJECT'S EDUCATIONAL PLANS WITH ADJUSTMENTS BY RACE, SEX, BEST FRIEND'S EDUCATIONAL PLANS, PERCENT IN SCHOOL GOING TO COLLEGE, PERCENT BOYS DROPPING OUT AND PERCENT IN SCHOOL WHO ARE NEGRO

	Deviations from Grand College Plans Rate: 52.5%				
Mother's Expectation	Unadjusted	Net: Race Sex, Best Friend's Plans	Net: Race, Sex, Percent Going To College	Net: Race, Sex Percent Boy Dropping Out	Net: Race, Sex, Percent Negro
Go to college	24	21	24	24	24
Other	-37	-33	-37	-37	-37

*Adjusted by multiple classification

Table 23

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND BEST FRIEND'S PLANS

EDUCATIONAL EXPECTATION OF MOTHER AND BEST FRIEND'S PLANS	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
No go + NA					**							
Go to college	67.4	67.3	- .1	71.2	67.8	- 3.4	61.4	63.4	2.0	65.2	60.4	-4.8
Other	13.4	11.5	-1.9	17.2	23.6	6.4	7.4	7.7	.3	11.2	13.5	2.3
Go												
Go to college	84.7	85.5	1.2	88.5	79.5	- 9.0	78.7	79.2	.5	82.5	78.4	-4.1
Other	30.7	31.4	.7	34.5	52.6	18.1	24.7	21.2	-3.5	28.5	36.9	8.4

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 24

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND PERCENT GOING TO COLLEGE

EDUCATIONAL EXPECTATION OF MOTHER AND PERCENT GOING TO COLLEGE	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Less than 50%												
Go to college	76.1	83.0	6.9	78.4	76.7**	- 1.7	71.3	68.7	-2.6	73.6	66.5	- 7.1
Other	15.6	13.8	-1.8	17.9	23.5	5.6	10.8	7.7	-3.1	13.1	15.0	1.9
50% or more												
Go to college	80.5	81.1	.6	82.8	87.8	5.0	75.7	75.9	.2	78.0	73.7	-4.3
Other	20.0	20.4	.4	22.3	29.0	6.7	15.2	11.8	-3.4	17.5	29.0	11.5
No 12th grade; NA												
Go to college	78.1	74.7	-3.4	80.4	68.9	-11.5	73.3	77.4	4.1	75.6	71.2	- 4.4
Other	17.6	16.2	-1.4	19.9	30.7	10.8	12.8	14.3	1.5	15.1	20.8	5.7

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 25

OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, RACE, BEST FRIEND'S PLANS, AND PERCENT GOING TO COLLEGE

Mother's Expectation and Percent Going on to College	Best Friend's Plan and Race					
	WHITES			NEGROES		
	Not go to col.	Go to col.	Don't know	Not go to col.	Go to col.	Don't know
50% + Go to College						
Go to college	72.9*	83.6	65.9	.0	91.8	62.2
Not go to college	7.7	24.0	17.6	15.1	52.8	43.9
Less than 50% Go						
Go to college	61.3	82.3	72.3	77.8	74.1	56.7
Not go to college	5.7	23.1	9.2	21.6	26.3	14.6

*Underline indicates that estimated base of rate is less than 400,000.

School Characteristic: Percent of Tenth-Grade Boys Who Dropped Out Before Graduation -

Again, there is some variation in the correspondence between subject's and mother's aspiration by school dropout rate, but adjustment of deviations from the grand rate according to categories of mother's expectation by school dropout rate produces no change in these deviations (Tables 22A and B). The interactions parallel those reported for college-going rate. (See Table 26). White boys whose mothers expect them to go to college and who attend schools with high dropout rates are more likely to have college plans than expected. Negro boys in schools with low dropout rates whose mothers expect them to go to college are more likely to plan for college than expected. Negro girls in these schools whose mothers do not expect them to go to college also are more likely to have college plans than expected.

School Characteristic: Percent of the Student Body that is Negro -

The percent of the students that are Negro makes a difference in relationship between mother's and child's aspirations in the case of Negroes but not in the case of whites (Table 22A). Deviations in college plans by mother's expectation are not changed by adjusting for the effects of this characteristic (Table 22B). Again, the interactions are confined to Negroes--generally in the previously reported direction. (See Table 27.) Negroes whose mothers don't expect them to go to college are more likely to have college plans than expected if they attend a school in which Negroes are underrepresented.

Looking over the results of adding school characteristics as controls, it can be seen that the plans-expectation relationship is largely independent of these characteristics, except that Negroes in schools with low dropout rates, high college-going rates, and underrepresentation of Negroes are more likely to have college plans than expected if the effects were simply additive. The effects of mother's expectation and best friend's plans are additive.

Characteristics of Community: Region and Location in the Central City, Ring, or Outside of a Standard Metropolitan Statistical Area -

There is considerable variation in the relationship between subject's and mother's aspiration according to place of residence (Table 28). Given the small numbers of cases in many of the subgroups it would be reasonable to ask whether or not the variations in the size of the relationship is more a consequence of sampling fluctuations than a representation of community effect.

Table 26

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND CONTEXT: PERCENT BOYS DROPOUT

EDUCATIONAL EXPECTATION OF MOTHER AND & BOYS DROPOUT	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
Less than 10%												
Go to college	79.0	81.5	-2.5	81.0	**91.2	10.2	74.2	72.3	-1.9	76.2	75.3	- .9
Other	18.1	17.9	- .2	20.1	20.5	.4	13.3	9.2	-4.1	15.3	29.2	13.9
10% or more												
Go to college	76.8	81.6	4.8	78.8	74.5	- 4.3	72.0	72.1	.1	74.0	64.5	- 9.5
Other	15.9	13.9	-2.0	17.9	17.2	- .7	11.1	8.6	-2.5	13.1	11.2	- 1.9
No information												
Go to college	78.6	75.6	-3.0	80.6	68.6	-12.0	73.8	77.1	3.3	75.8	70.9	- 4.9
Other	17.7	15.7	-2.0	19.7	34.2	14.5	12.9	14.0	1.1	14.9	19.8	4.9

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 27

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND PERCENT NEGRO IN HIGH SCHOOL

EDUCATIONAL EXPECTATION OF MOTHER AND PERCENT NEGRO HIGH SCHOOL	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
0-10 Percent												
Go to college	78.0	79.5	1.5	78.7	68.0**	-10.7	73.2	73.3	.1	73.9	78.3	4.4
Other	17.0	14.7	-2.3	17.7	34.5	16.8	12.2	11.4	- .8	12.9	20.9	8.0
11 percent or more												
Go to college	81.8	84.0	2.2	81.9	81.2	- .7	76.4	72.3	-4.1	77.1	70.4	-6.7
Other	20.2	22.8	2.6	20.9	24.8	3.9	15.4	10.4	-5.0	16.1	22.1	6.0
No information												
Go to college	78.5	76.6	-1.9	79.2	66.0	-13.2	73.7	77.7	4.0	74.4	68.4	-6.0
Other	17.5	17.2	- .3	18.2	30.3	12.1	12.7	12.2	- .5	13.4	16.5	3.1

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

The multiple classification adjustment of deviations from the grand plans rate for categories of mother's expectation by type of residence fails to produce any change in the size of these deviations; i.e., subjects whose mothers do not expect them to attend college are 37 percent below the grand rate while those whose mothers do expect them to attend college are 24 percent above the grand rate. Review of the interactions displayed in Table 28 reveals that the interactions are small where the subgroup N's are large. The often mentioned interaction of race with mother's expectation on college plans is observed in those types of residence in which Negroes are the most numerous; i.e., the central cities of the North and South and the nonmetropolitan area of the South. There are interactions in opposite directions for white females in the central cities of the South versus central cities of the West. In the South, white girls whose mothers want them to go to college are more likely to have college plans than the model predicts and those whose mothers do not expect them to go are less likely to have college plans than the model predicts. The reverse pattern is observed for white girls in the central cities of the West.

The tests for interaction are generally negative in that the sizeable deviations from the additive model are primarily confined to the smallest subgroups. A consistent pattern of interaction was observed to exist between race and mother's expectation relative to subject's plans.

Negro subjects whose mothers expect them to go to college are less likely to plan for college than the additive model predicts, while Negro subjects whose mothers do not expect them to go to college are more likely to plan for college than the model predicts. That pattern of interaction was observed to exist even when characteristics of the subject, characteristics of the mother, family, school, and community are introduced as controls. Some exceptions to this pattern could be observed for small subgroups of Negro males whose mothers expect them to go to college: those with high I.Q. scores, or those whose mothers went to college or those enrolled in schools having a high percentage of graduates going to college or a low percentage of dropouts are more likely to plan for college than the additive model expects. All of the Negro boys whose mothers expect their sons to go to college, and who either have high I.Q. scores or have college-educated mothers plan to go to college. Over 90 percent of the Negro boys in this category of mother's expectation and who attend schools with low-dropout rates plan to go to college and almost 90 percent of these boys attending schools with high college-going rates have college plans.

Table 28

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND RESIDENCE

EDUCATIONAL EXPECTATION OF MOTHER AND RESIDENCE	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
NORTH												
Central City												
Go to college	78.4	81.5	3.1	81.4	78.2**	- 3.2	73.6	73.5	- .1	76.6	66.0	-10.6
Other	18.4	19.2	.8	21.4	25.2	3.8	13.6	9.6	- 4.0	16.6	25.9	9.3
Ring												
Go to college	77.7	80.6	2.9	80.7	100.0	19.3	72.9	73.2	.3	75.9	77.2	1.3
Other	17.7	12.3	- 5.4	20.7	25.4	4.7	12.9	11.4	- 1.5	15.9	--	--
Other												
Go to college	76.2	78.6	2.4	79.2	76.9	- 2.3	71.4	68.2	- 3.2	74.4	100.0	25.6
Other	16.2	19.5	3.3	19.2	35.3	16.1	11.4	9.5	- 1.9	14.4	35.2	20.8

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 28 (continued)

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND RESIDENCE

EDUCATIONAL EXPECTATION OF MOTHER AND RESIDENCE	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
SOUTH												
Central City												
Go to college	77.7	78.7	1.0	80.7	71.2	- 9.5	72.9	84.4	11.5	75.9	65.5	-10.4
Other	17.7	9.8	- 7.9	20.7	39.1	18.4	12.9	7.8	- 5.1	15.9	13.8	- 2.1
Ring												
Go to college	76.8	77.2	.4	79.8	63.3	-16.5	72.0	76.6	4.6	75.0	90.1	15.1
Other	16.8	8.6	- 8.2	19.8	33.0	18.2	12.0	8.5	- 3.5	15.0	9.8	- 5.2
Other												
Go to college	73.3	71.6	- 1.7	76.3	69.8	- 6.5	68.5	71.9	3.4	71.5	63.6	- 6.9
Other	13.3	10.5	- 2.8	16.3	22.9	6.6	8.5	9.8	1.3	11.5	21.6	10.1

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

Table 28 (continued)

EXPECTED* AND OBSERVED COLLEGE-PLAN RATES BY MOTHER'S EDUCATIONAL EXPECTATIONS FOR HER CHILD, SEX, RACE AND RESIDENCE

EDUCATIONAL EXPECTATION OF MOTHER AND RESIDENCE	MALES						FEMALES					
	WHITES			NEGROES			WHITES			NEGROES		
	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.	Exp.	Obsv.	Dif.
WEST												
Central City												
Go to college	85.3	82.8	- 2.5	88.3	81.0	- 7.3	80.5	79.6	- .9	83.5	76.6	- 6.9
Other	25.3	38.2	12.9	28.3	22.7	- 5.6	20.5	31.7	11.2	23.5	11.0	-12.5
Ring												
Go to college	85.3	80.5	- 4.8	88.3	73.2	-15.1	80.5	83.8	3.3	83.5	88.1	4.6
Other	25.3	29.9	4.6	28.3	--	--	20.5	24.0	3.5	23.5	--	--
Other												
Go to college	79.3	80.6	1.3	82.3	100.0	17.7	74.5	75.3	.8	77.5	--	--
Other	19.3	15.7	- 3.6	22.3	--	--	14.5	13.5	- 1.0	17.5	--	--

*Expected from additive multiple classification model

**Underline indicates that estimated base of rate is less than 400,000.

The major trend observed in these data should not be obscured by descriptions of minor variations in the pattern. This is the fact that a strong association exists between mother's educational expectation for the child and the child's own plans. The relationship persists throughout all of the partialling analysis and although it is somewhat attenuated under certain conditions, the relationship is not spurious (that is, it cannot be made to disappear) when other test factors known to be related to mother's expectation and/or subject's plan are introduced into the analysis.

Because the major interaction seems to occur between subject's educational plans, mother's educational plans and race, the next chapter will contrast the effects of characteristics of individuals, families, and schools on the parent-child aspirations relationship for whites as compared with Negroes. Separate multiple classification analyses will be performed for the subgroups in order to compare the adjusted effects of characteristics on the white aspirations relationship with the adjusted effects of the same characteristics on the Negro aspirations relationship.

Chapter V

RACE DIFFERENCES IN THE EFFECT OF MOTHER'S EDUCATIONAL EXPECTATION FOR SUBJECT ON SUBJECT'S COLLEGE PLANS BY CULTURAL AND ECONOMIC CHARACTERISTICS

The analysis in the previous chapter has shown that the effects of the other variables on mother's education are largely additive except across racial groups. Since the effects are additive, it seems worthwhile to extend the analysis by considering the effects of combinations of characteristics with mother's expectation on college plans in separate analyses for Negroes and whites. It is necessary to narrow the task by limiting the multivariate analyses to those variables which have been demonstrated to have some effect on variation in subject's plans by mother's expectations. These characteristics include intelligence test score of subject, subject's and mother's value of education as a success means, mother's educational attainment, occupation of household head, family income, and best friend's educational plans. Another characteristic, percent in the school going on to college, is included in the analysis because of the widespread interest in the effect of school context on college plans. The strategy will be to first investigate what the combined effect of these characteristics is upon variation by mother's expectation in percent of white and Negro pupils planning to attend college and then to show what particular combinations of variables produce the greatest effect on the mother-child aspiration relationship. The investigation is particularly directed at the differential effects of predictors of college plans for Negro pupils as opposed to white pupils.

The following analysis involves several modifications of the previous use of the variables along with some added detail with respect to the socioeconomic status indicators. The multivariate analysis will always include intelligence test score and place of residence along with subject's plans and mother's expectations. The interest is less in intelligence as a predictive factor per se and more on controlling or standardizing on the effect of intelligence test score while examing the effects of combinations of other characteristics on the plans-expectation relationship. Region-metropolitan residence will also be carried along as a factor for standardization or control for those parts of the analysis which involve characteristics which are known to vary by this factor. This form of standardization is particularly cogent in the case of data depending upon school reports, i.e., intelligence test scores and principal's estimate of percent of the student body that goes on to college, since there is some variation in the completeness of school reports by community of residence.

Unfortunately, the formulations of the relationship between plans and various indicators of socioeconomic status have not been made sufficiently explicit in previous research. Therefore, it is necessary to make some rather heavyhanded assumptions about how characteristics of the mother, the family, peers, and school might mesh or conflict in their operation on college plans. It may facilitate the discussion if these characteristics are grouped in two categories. One group of characteristics can be viewed as having normative or subcultural implications. Educational plans of the subject's best friend would be a case in point. It seems reasonable to assume that the connection between subject's own educational plans and those of his best friend are partially a consequence of their sharing norms concerning the value of education itself, the appropriate effort to be devoted to schoolwork, occupational ambitions, etc. This is not to imply that the direction of influence is always from the friend to the subject. Rather, if the best friend's plans are to attend college, the subject is operating in a small group situation in which entertaining college aspirations is probably viewed as normal or appropriate. Likewise, if the student attends a school in which the majority of pupils in that school go on to college, then planning for college seems normal or appropriate. Unfortunately there are no data available concerning the values of the best friend or the value climate of the school. There are, of course, the data concerning the subject's and the mother's evaluation of education as a success means. The examination of the data will proceed by using multiple classification to evaluate the degree to which mother's expectation and the normative or value-related characteristics have independent effects upon the subject's plans. Further analysis may show the degree to which these value-related characteristics are independent of a second general type of characteristic, namely, the economic or family resource characteristic.

The economic or resource characteristics are those which are indicative of the family's ability to put its members through college. Income is the first and most salient of these characteristics but income needs to be qualified by certain other considerations. Not the least of these is the size of family. The size of the complete family is not available for this analysis but there is information concerning the number of teenagers in the family. Since teenagers are either at or near the age for deciding to attend college, it seems that the number of teenagers in the family would influence both the mother's expectation and the subject's plans to attend college--at least in those families with limited means for sending one or more of the children to college. It would also be desirable to know the type of income. That is, can the family count on an annual salary or does the family income depend upon seasonal types of employment, piecework, etc.? Again, there are no data on the type or source of family income. However, there are crude data concerning the occupation of household head. Although there no doubt exists a considerable amount of overlap, one might expect that white-collar jobs would be more likely to be salaried jobs. Manual or farm occupations, on the other hand, might be more subject to fluctuating income. This is obviously the case for those families where the head of household was unemployed at the time of the Current Population Survey.

The economic-resource characteristic is handled as a single factor by dichotomizing occupation of household head, income of family, and number of teenagers and cross-classifying these dichotomies to produce an eight-fold measure. Occupation is dichotomized into white-collar versus all other occupations, unemployed or no information on occupation. Income is dichotomized into income less than $6000 versus income $6000 or more and no information on income. The number of teenagers was dichotomized into one teenager versus more than one teenager. Since this particular cross-classification does not appear elsewhere in the report it may be worthwhile to examine the variation in college plans rates by its categories. See column 2 of Tables 29 and 30 which shows unadjusted deviations from the grand college plans rates of whites and of Negroes.

It can be seen that the effects of family income, occupation, and number of teens are additive in the case of whites but not in the case of Negroes. The major difference in college plans rates of whites comes between the high-income and the low income white-collar subgroups and the difference is compounded by the number of teenagers in the family. Thus, subjects who are the only teenagers in white-collar families with income $6000 or more are 21 percent more likely to have college plans while subjects in multi-teen families with incomes under $6000 are only one percent above the grand rate. In the

Table 29

UNADJUSTED AND ADJUSTED* DEVIATIONS FROM GRAND RATF OF COLLEGE PLANS FOR WHITES BY MOTHER'S EXPECTATION, INTELLIGENCE TEST SCORE, SUBJECT'S AND MOTHER'S VALUE OF COLLEGE EDUCATION AS A SUCCESS MEANS, ECONOMIC RESOURCES, BEST FRIEND'S PLANS AND SCHOOL CONTEXT

Characteristics	% in Categ.	Unadjusted Deviations	Adjusted Deviations from the Grand College Plans Rate						
			M.&S. Vals.	M.&S. Vals. & M.Ed.	M.&S. Vals. B. Fr. Plan	M.&S. Vals. P. go to col.	M.&S. Vals. M.Ed., B. Fr. plan; go to col.	Economic Resources	All Characteristics
Mother's Expectation									
Go to college	61.9	24.1	22.0	21.0	20.0	21.9	19.5	22.3	19.3
Not go to college	38.1	-39.2	-35.7	-34.2	-32.6	-35.6	-31.7	-36.3	-31.4
Mother's and Subject's Value of Education									
S:other; M:other	26.6	-20.3	- 6.0	- 6.1	- 4.8	- 6.0	- 5.0		- 4.9
S:other; M:educ.	19.7	- 7.6	- 6.0	- 6.0	- 5.4	- 6.0	- 5.3		- 5.3
S:educ.; M:other	12.4	5.8	5.4	5.0	4.3	5.5	4.1		4.0
S:educ.; M:educ.	41.3	14.9	5.1	5.3	4.4	5.1	4.6		4.5
Mother's Education									
8th grade or less	19.7	-21.0		- 5.4			- 3.9		- 3.0
Grades 9-11	19.9	-11.3		- 4.1			- 3.3		- 2.8
12th grade	41.7	7.9		1.7			1.3		1.0
Any college	14.6	25.4		6.7			4.9		3.6
No information	4.0	-16.2		4.2			4.7		4.9
Best Friend's Plans									
Go to college	51.2	18.7			7.2		6.7		6.6
Not go to college	48.8	-19.6			- 7.5		- 7.0		- 6.9
Percent Going to Col.									
Less than 50%	29.3	- 6.2				- 1.2	- .6		- .7
50% or more	26.7	10.2				.8	.1		.5
No information	44.0	- 2.0				.3	.3		.2

Table 29 (Continued)

UNADJUSTED AND ADJUSTED * DEVIATIONS FROM GRAND RATE OF COLLEGE PLANS FOR WHITES BY MOTHER'S EXPECTATION, INTELLIGENCE TEST SCORE, SUBJECT'S AND MOTHER'S VALUE OF COLLEGE EDUCATION, ECONOMIC RESOURCES, BEST FRIEND'S PLANS AND SCHOOL CONTEXT

Characteristics	% in Categ.	Adjusted Deviations from the Grand College Plans Rate 52.8							
		Unadjusted Deviations	M.&S. Vals.	M.&S. Vals. & M.Ed.	M.&S. Vals. B. Fr. Plan	M.&S. Vals. P. go to col.	M.&S. Vals. M.Ed., B. Fr. plan; P. go to college	Economic Resources	All Characteristics
Economic Resources									
W.C. $6000+;1 teenager	16.5	20.7						6.6	3.8
W.C. $6000+;>1 teenager	12.8	15.0						4.2	2.2
W.C. <$6000; 1 teenager	4.1	5.1						1.9	.8
W.C. < $6000;>1 teenager	3.2	.9						2.5	2.8
N.W.C. $6000+;1 teenager	16.2	4.0						-1.1	- .9
N.W.C.$6000+;>1 teenager	17.4	- 6.4						-2.1	-1.6
N.W.C.<$6000; 1 teenager	14.3	-12.1						-3.6	-1.9
N.W.C.<$6000;>1 teenager	15.6	-21.7						-4.7	-2.1
Residence									
Northeast: Central City	6.5	- 1.1	2.2	2.8	2.2	2.2	2.7	2.2	2.6
Ring	12.2	4.9	1.6	1.0	1.5	1.7	1.1	.5	.9
Outside SMSA	6.2	- 1.5	- .3	- .6	- .6	.0	- .7	.0	- .5
North Cen.: Central City	6.5	- 1.3	-1.1	-1.0	-1.1	-1.3	-1.0	-1.3	-1.1
Ring	10.7	- 1.0	-2.8	-3.1	-3.2	-2.9	-3.3	-3.5	-3.5
Outside SMSA	11.2	- 6.2	-2.1	-1.9	-1.6	-1.9	-1.3	-2.2	-1.0
South: Central City	5.5	2.2	.0	2.6	- .4	- .2	- .4	.5	- .7
Ring	7.4	- 1.7	-1.8	-2.0	-1.9	-1.9	-2.0	-2.6	-2.4
Outside SMSA	14.8	-12.7	-4.4	-3.5	-4.0	-4.3	-3.3	-3.0	-3.1
West: Central City	5.1	18.6	8.1	7.3	6.7	7.7	6.0	7.4	5.8
Ring	8.8	13.1	7.1	6.3	7.1	6.9	6.4	7.2	6.5
Outside SMSA	5.1	4.8	.9	1.0	2.0	.9	2.0	2.1	2.3
Intelligence Test Score									
Top 4 Stanines	32.1	14.1	3.2	2.7	2.6	3.3	2.3	2.9	2.1
Bottom 5 Stanines	27.7	-13.5	-3.6	-2.9	-3.1	-3.5	-2.4	-3.2	-2.3
No information & no 12 grade	40.2	- 1.9	- .1	- .1	.0	- .2	- .2	- .1	- .1

Table 30

UNADJUSTED AND ADJUSTED* DEVIATIONS FROM GRAND RATE OF COLLEGE PLANS FOR NEGROES BY MOTHER'S EXPECTATION, INTELLIGENCE TEST SCORE, SUBJECT'S AND MOTHER'S VALUE OF COLLEGE EDUCATION, ECONOMIC RESOURCES, BEST FRIEND'S PLANS AND SCHOOL CONTEXT

Characteristics	% in Categ.	Unadjusted Deviations	Adjusted Deviations from the Grand College Plans Rate						
			M.&S. Vals.	M.&S. Vals. & M.Ed.	M.&S. Vals. B. Fr. Plan	M.&S. Vals. P. go to col.	M.&S. Vals. M.Ed., B. Fr. plan; P. go to col.	Economic Resources	All Characteristics
Mother's Expectation									
Go to college	53.9	21.9	21.1	20.0	19.8	21.0	17.9	20.2	19.9
Not go to college	46.1	-25.7	-24.7	-23.5	-22.0	-24.6	-21.0	-23.6	-23.3
Mother's and Subject's Value of Education									
S: other; M: other	25.5	-11.4	- 1.5	- .7	- 1.4	- 1.3	- .6		- .1
S: other; M: educ.	16.9	- 5.9	- 5.6	- 6.1	- 4.5	- 5.8	- 4.9		- 4.9
S: educ.; M: other	13.5	- 3.9	.3	1.0	1.8	1.6	3.0		2.9
S: educ.; M: educ.	44.1	10.1	2.9	2.4	1.9	2.5	1.3		1.1
Mother's Education									
8th grade or less	39.9	- 8.6		- 6.3			- 5.9		- 5.4
9th-11th grade	29.7	- 1.7		- .2			- .5		- .2
12th grade	18.5	13.0		4.4			4.0		2.5
Any college	5.8	40.3		24.2			23.6		22.4
No information	6.2	-12.4		6.2			6.3		7.3
Best Friend's Plans									
Go to college	62.7	20.1			10.9		10.5		10.1
Not go to college	37.3	-12.0			- 6.5		- 6.2		- 6.0
Percent Going to Col.									
Less than 50 percent	31.2	- 3.0				- 4.8	- 3.0		- 3.1
50 percent or more	10.2	13.9				5.3	.1		- .5
No information & no 12th grade	58.6	- .8				1.6	1.6		1.8

Table 30 (Continued)

UNADJUSTED AND ADJUSTED* DEVIATIONS FROM GRAND RATE OF COLLEGE PLANS FOR NEGROES BY MOTHER'S EXPECTATION, INTELLIGENCE TEST SCORE, SUBJECT'S AND MOTHER'S VALUE OF COLLEGE EDUCATION, ECONOMIC RESOURCES, BEST FRIEND'S PLANS AND SCHOOL CONTEXT

Characteristics		% in Categ.	Unadjusted Deviations	Adjusted Deviations from the Grand College Plans Rate						
				M.&S. Vals.	M.&S. Vals. & M.Ed.	M.&S. Vals. B. Fr. Plan	M.&S. Vals. P. go to col.	M.&S. Vals. M.Ed., B. Fr. plan; P. go to college	Economic Resources	All Characteristics
Economic Resources										
W.C. $6000+; 1 teenager		1.2	20.4						3.0	- 8.0
W.C. $6000+;>1 teenager		3.3	35.3						13.7	2.4
W.C. < $6000; 1 teenager		2.1	41.8						25.5	18.6
W.C. < $6000;>1 teenager		2.2	- 2.7						- 6.7	- 5.5
N.W.C. $6000+;1 teenager		6.9	13.0						3.3	- .6
N.W.C. $6000+;>1 teenager		8.1	4.5						7.5	8.0
N.W.C. < $6000; 1 teenager		26.5	7.7						5.7	5.9
N.W.C. < $6000;>1 teenager		49.7	-11.1						- 6.5	- 4.9
Residence										
Northeast:	Central City	8.4	2.5	4.2	2.8	4.4	4.0	3.4	3.0	4.3
	Ring	1.6	3.1	2.8	1.1	2.3	4.2	1.2	.9	- .3
	Outside SMSA	1.0	14.7	16.7	13.5	9.4	14.4	5.5	15.4	4.2
North Cen.	Central City	16.7	1.8	- .9	- 1.7	- 1.5	- .6	- 2.1	- 1.9	- 2.8
	Ring	1.9	-27.9	- 8.6	-13.0	- 7.9	- 9.0	-12.9	- 6.6	-11.5
	Outside SMSA	1.4	.4	3.6	4.8	7.5	.2	7.7	1.3	4.8
South:	Central City	19.1	.6	- .1	- 1.0	.5	- .5	- .8	.2	- .7
	Ring	10.2	4.2	3.8	3.1	3.6	3.3	2.7	3.6	3.1
	Outside SMSA	33.4	- 4.4	- 2.5	- .8	- 2.2	- 1.7	- .2	- 1.7	- .1
West:	Central City	4.6	5.7	.3	1.4	- 2.8	- 1.3	- 2.0	.5	- 1.5
	Ring	1.3	32.2	8.1	8.1	10.4	6.1	9.3	7.1	7.2
	Outside SMSA	.3	24.0	11.3	9.7	19.4	9.5	15.9	15.9	17.4
Intelligence Test Score										
Top 4 Stanines		5.5	19.8	11.5	11.6	9.7	13.7	11.8	12.6	12.8
Bottom 5 Stanines		29.0	3.5	2.7	2.7	2.0	3.9	3.1	1.9	3.0
No information		65.5	- 3.2	- 2.2	- 2.2	-1.7	- 2.9	- 2.4	- 1.9	- 2.4

case of teenagers from low-income, nonwhite-collar families with more than one teenager, the college plans rate is almost 22 percent below the grand rate.

The differences by number of teenagers are probably statistically significant within the categories of income in the case of subjects from nonwhite-collar households. The number of teenagers seems to make more of a difference in the case of subjects from nonwhite-collar households than in the case of subjects from white-collar households. Although the differences noted in Table 29 are substantial (before adjustment by the other characteristics) the difference between the extreme categories is not much greater than differences observed between extreme categories of family income alone or occupation of household head alone. (See Table 4B, pp. 65-67) Although it would have been desirable to use an even more refined measure of economic resources, there is not enough detail and there are not enough cases to go much beyond this measure.

The effects of family income, number of teenagers, and occupation of household head are not additive in the case of Negroes. White-collar Negroes from families with incomes $6000 or more and those from families with incomes less than $6000 but with only one teenager are much more likely to plan for college than the average Negro subject in this sample. Also, Negroes from nonwhite-collar families are much more likely to plan for college than expected if the family income is $6000 or more and if there is only one teenager in the family. At the other end of the measure Negroes from low-income, nonwhite-collar families are less likely to plan for college than the average Negro in the sample. However, the difference between the plans rate for this subgroup and the grand rate for Negroes is not as great as the difference between whites in this subgroup and the average rate for whites. This of course, represents the effect of having a large proportion of Negro subjects from large, low-income, nonwhite-collar families in the sample. It is important to note that within this family-size-occupation-income category there is some difference between the unadjusted plans rates of Negroes and whites. The college plans rates for Negroes is 39 percent, while the rate for whites is 31 percent. (Subgroup N's are sufficiently large that the difference is significant.)

Multiple classification will be used to adjust the effect of mother's expectations on subject's plans by the interrelation of each of these indicators of aspirations with other characteristics. Two sets of characteristics are considered. Those which are assumed to have some relationship with the norms and values of mother and child are first entered into the multivariate analysis. Then these characteristics are excluded and the composite indicator of economic resourses is substituted in the adjustment process. The unadjusted and the adjusted deviations from the grand college-plans rate for whites are shown in Table 29; the unadjusted and adjusted rates for Negroes are shown in Table 30. The analysis will proceed by first examining the effect of adjusting the effects of mother's expectation on child's plans by the correspondence between mother's and subject's value of education as a success means and then introducing additional controls which could be related to the value of education by mother and/or subject.

Adjusting the effect of mother's aspiration on child's aspiration by correspondence between mother's and subject's valuation of getting a college education as a success means, along with intelligence test score and character of residence does not produce any great change in the relationship. (See column three of Tables 29 and 30.) This adjustment reduces the difference between the college plans rate of students whose mothers expect them to go to college and the rate for those whose mothers do not expect them to go by about 6 percent in the case of whites and by about two percent in the case of Negroes. However, the counter effect on the other variables are appreciable. That is, one can also examine the effects of controlling mother's expectation, intelligence test score, and residence on correspondence between values of mother and values of subject, or the effects on residence or on intelligence test score. It can be seen that the effect of the adjustment on correspondence between mother's and subject's valuation of education as a success means is appreciable. Also, the effect on intelligence test score is appreciable. The general impression that one gets from these data is that part of the correspondence between mother's expectation and subject's aspiration is a result of the relationship between these variables and the control characteristics. The effect of mother's expectation on subject's plans is largely independent of the characteristics used in the adjustment. However, the effect of these other characteristics on subject's plans is not independent of mother's expectation.

One may ask whether or not any connection between parent-subject emphasis on college education as a success means and correspondence of parent-child aspirations is really a consequence of mother's educational background. Does the level of education attained by the mother make any difference? It would be reasonable to assume that mothers who reach the higher levels of educational attainment may have been exposed to norms which lead them to transmit high levels of educational aspiration to their children. Such mothers may be more aware of the importance of educational attainment as it relates to vertical mobility, etc. The result of adding mother's educational attainment to the plans-expectations-values scheme is to produce a very small (2 percent) further reduction in the difference between subject's plans by mother's expectations. Again, the counter reduction in effect of mother's educational attainment on subject's plans is quite marked, suggesting that while the effect of mother's expectation on subject's plans is relatively independent of the level of educational attainment, the effect of mother's attainment on subject's plans is not independent of mother's expectations.

Another possible explanation for the correspondence between parent and child aspirations and values could be that the mother has manipulated the child's experience in such a way as to lead him to choose the kind of peers that will reinforce her educational expectations for the child. If this is so, then adding best friend's plans to the explanatory system should serve to reduce the relationship between parent and child aspirations. It can be seen in column 5 of Tables 29 and 30 that adding college plans of subject's best friend serves to further reduce difference in subject's aspiration by mother's expectation, particularly in the case of Negroes. There are corresponding further reductions in variation in subject's plans by subject's and mother's values and in the effect of the best friend's plan itself. The concomitant reduction in the effects of these three variables suggests that there is some connection between the subject's values and plans, his mother's values and plans and the educational plans of his best friend. Whether the values of mother and child lead the child to select those friends who share their levels of aspiration or whether the best friend affects the values and aspirations of the mother and child is a matter for conjecture. It is necessary to note, however, that even the inclusion of best friend's plans in the adjustment procedure does not really produce any great change in the effect of mother's expectation on subject's plans. Again, the effect of mother's expectation on subject's plans is largely independent of the effect of best friend's plan on subject's plan, but the effect of best friend's plan on subject's plan is not independent of mother's expectation.

A related analysis involves substituting the effect of achievement norms in the subject's school for best friend's plan and repeating the analysis. The reasoning here is that the values and expectations of both mother and child are affected in part by the college-going pattern which is observed in the school he attends. It can be seen in column six of Tables 29 and 30 that addition of school context to the analysis produces no appreciable increment to the effects of controlling mother-subject values, intelligence test score, and character of residence. Again, it is apparent that the parent-child aspiration relationship is independent of school context, but the effect of adjusting the context effect by mother's expectation and mother and subject values is a sizeable one. In fact, it would be fair to say that there is no relationship between percent of student body going on to college and subject's plans, once mother's expectation and mother-subject values have been controlled along with intelligence test score and residence. Any effect that school context has on college plans is an artifact of selection into the school according to the above mentioned factors.

One may well ask what is the combined effect of mother-subject values, mother's educational attainment, best friend's plans, and percent going to college on the relationship between mother's expectation and subject's plans? It can be seen in column seven of Tables 29 and 30 that adjusting deviations from the college-plans rate by mother's expectation according to the effects of all the value-related characteristics serves to reduce the deviations so that the original 63 percent spread between college-plans rates for subjects whose mothers expect them to attend college and those whose mothers do not expect them to attend is reduced to a 51 percent difference. It seems safe to conclude that the value-connected characteristics have some effect on the parent-child aspirations relationship but there is still a considerable relationship even when all of these characteristics are controlled.

Therefore, it seems appropriate to ask if the correspondence between mother's expectations and subject's plans can be a consequence of a joint appreciation of the degree to which family resources will permit the child to attend college. It should be noted that if the economic resources variable is included with intelligence test score and residence as control variables, there is an attenuation in the parent-child-plans relationship. The degree of attenuation is roughly comparable to that obtained when correspondence between mother's and subject's values is included as a control. (See column 8 of Tables 29 and 30.) Adding economic resources to the adjustments results in greater attenuation of difference in youth's plans by mother's expectation for whites than for Negroes.

If one chooses to look at the converse aspect of these tables, it can be seen that the effect of economic resources on subject's plans is greatly attenuated when mother's expectation is controlled, particularly for whites. These results indicate that economic resources figure in influence of mother's expectations on child's plans but they are not of overriding importance. That this is so becomes evident when all characteristics are controlled simultaneously. (See the last column in Tables 29 and 30.)

Perhaps the most significant aspect of this whole series of adjustments is the high correspondence between subject's plans and mother's expectations which continues to be observed regardless of the control of any combination (or all) of the test characteristics. It suggests that mother's expectations have some effect on child's plans (or vice versa) that is relatively independent of all the characteristics as they are measured and introduced in this investigation. This is true for both whites and Negroes. A review of the foregoing analysis leads one to suspect that it is the transmission of expectations and values from mother to child which is crucial in the formation of child's plans. It should be noted, of course, that best friend's plans and other value-related items do serve to produce minor attenuation of the relationship. Perhaps the most surprising finding is that the economic resources characteristics carries no more weight in the adjustment procedure than it does. Adding economic resources to the adjustments by the value-related characteristics does not produce any further attenuation of the mother-child aspirations relationship. *These results lead one to conclude that further explorations concerning factors affecting the formulation of adolescent's aspirations would be more productive if the focus is on normative rather than economic factors*.

Although the results of the multiple-classification analysis are similar for both whites and Negroes, it should be noted that there are some differences in the size of the adjusted deviation. First it should be noted that relationship between mother's expectations and subject's plans is greater for whites than for Negroes even though all characteristics are entered into the adjustment procedure. The effect of mother expecting college is the same for Negroes and whites, but the effect of mother not expecting the subject to go to college is greater for whites than for Negroes (see adjusted deviations in the last column of Tables 29 and 30). Similarly, the effects of correspondence between mother's and subject's value of education as a success means on subject's plans are greater for whites than for Negroes, even after adjustment for other characteristics. The adjusted effects of mother's educational attainment are greater for Negroes than for whites, particularly if the mother has attended college. Also, the adjusted effects of best friend's plans are greater for Negroes than for whites. The effects of the composite economic resources characteristics are also greater for Negroes than for whites. The same is true for residence and intelligence test score. One might make the general observation that family factors have less of an independent effect on the college plans of Negro students than on the college plans of white students, while extra-familial factors have more independent effect on the plans of Negroes. Although mother's educational attainment provides an exception to this pattern, it should be noted that there is little difference between Negroes and whites in those categories of mother's attainment in which Negro subjects are concentrated (i.e., less than 12 years of schooling). Perhaps it is appropriate to insert a caution at this point. One should not make too much over differences in adjusted deviations for categories of characteristics having very few cases. For example, the negative adjusted effect (for Negroes only) of being in a family having a household head with a white collar job and an income in excess of $6,000 and only one teenage child is probably a consequence of high positive loading for other characteristics associated with being in this subgroup such as having a college educated mother, a best friend who plans to attend college, a higher I.Q. score, etc. When the combined effect of these other characteristics is included in the adjustment, the adjusted effect implies that the initially high plans rate for this category is largely a consequence of other characteristics used in the adjustment.

There are other aspects of the multiple classification analysis which merit attention. It would be prohibitively expensive to explore all possible combinations of the variables presented in Tables 29 and 30. If one were to assume that all relationships are symetrical (which they are not) it would require 207 multiple classifications for three and four variable combinations involving subject's plans and any other characteristic. The number of asymetric permutations is astronomical. Without burdening the reader with a large number of additional tables, there were other combinations of the variables which were studied to see what effect they have on subject's plans or on the relationship between subject's plans and mother's plans. The adjustment process was used to examine the effect of several variables on the relationship between mother's and child's aspirations excluding the value-of-education characteristic. The effect of mother's education on that relationship is not independent of the economic resources, particularly for whites. However, the attenuation in the relationship is no greater than that produced by the combination of values with any of the other characteristics. The attenuation of the mother-child-aspiration relationship is somewhat greater if best friend's plans is substituted for mother's education. No additional effect on that relationship is observed if school context is added to best friend's plans and economic resources in the adjustment procedure.

Another analysis considers the joint effects of mother's and subject's values and school context or best friend's plans and school context on subject's college plans, exclusive of mother's expectation. The effects of mother's and subject's value of education and of school context on subject's plans are relatively independent of one another. Coadjustment of deviations from the grand college plans rate by best friend's plans and school context indicates that the effect of best friend's plans is independent of school context but that school context effects are not independent of best friend's plans. Other multiple classifications indicate that the effects of best friend's plans on subject's plans are largely independent of the economic resources variables. This is not true in the case of school context. The effect of school context (percent of seniors going to college) is not independent of the economic resources of the family. This finding reinforces the notion that any differences in college aspiration according to school context are largely a consequence of selecting families from particular socioeconomic levels.

Nothing that has been reported regarding the results of these tangential analyses should be interpreted as contrary to the basic finding of this investigation that characteristics of the family, particularly mother's expectation for her child, are over-riding considerations in the prediction of subject's educational plans. Still another examination of that relationship follows in the form of a deviant case analysis.

Before concluding the analysis, it may be worthwhile to briefly examine the cases in which mother's expectation and subject's plans do not correspond. There are few cases in which plans and expectations do not agree because of the strong relationship reported in previous chapters. Therefore, it is impossible to perform any kind of extensive or detailed analyses. Instead, the reasons for plans or expectations are examined to see if they provide any clue as to why either the child does not plan for college or his mother does not expect him to attend college. Unfortunately, many of the mothers did not indicate why they did not expect their child to attend college and many of the subjects did not indicate reasons. Distributions of subjects according to mother's and subject's reasons for not having college aspirations for those responding are shown in Table 31. Reasons given by parent or youth when they both agree that the child will not go to college are given in the table to supply a basis for comparison.

Let us first examine subject's reasons for not planning to attend college when his mother expects that he will go to college (column two of Table 31). Desire to learn a trade is by far the most frequently mentioned reason in the case of both whites and Negroes--particularly the latter; 37 percent of the whites and 45 percent of the Negroes give this reason. Difficulty with school work, inability of the family to pay the cost, or dislike of school are given relatively infrequently by both whites and Negroes. These reasons are quite different from the reasons given by white youths not planning to attend college whose mothers also do not expect them to go. In the case of the latter group, difficulty with school work and cost to family are the most frequently mentioned reasons while desire to learn a trade is indicated as a reason by only 10 percent of the cases (see column one of Table 31).

Desire to get a job is mentioned by over half of those Negroes who do not have college plans and whose mothers do not expect that they will go to college. One would not want to draw any conclusions from data which depends upon so few cases. However, these results suggest that when child's plans and mother's expectations are not the same, the difference could be partly a function of difference in the type of training that the subject plans to get as compared with what his mother expects that he will get. In those cases in which youth's and parent's aspirations agree, it is desire to get a job or difficulty with school work that are advanced as reasons rather than the desire to get vocational training.

There are even fewer cases in which the subject plans to go to college but his mother does not expect that he will go to college. Subjects are distributed according to reasons that they will not go to college according to the mother. Mother's reasons are most likely to be inability of the family to pay the cost of college or subject's difficulty with school work. In the case of Negroes whose mother's do not expect that they will go to college, desire to learn a trade or difficulty

Table 31

SUBJECT'S AND/OR MOTHER'S REASONS THAT SUBJECT WILL NOT ATTEND COLLEGE BY RACE AND SUBJECT'S PLAN OR MOTHER'S EXPECTATION

Reason Not Plan College	Subject's Reasons He Doesn't Plan College		Mother's Reasons She Doesn't Expect Subject to Go	
	Mother's Expectations		Subject's Plans	
	Not go	Go to Col.	Not go	Go
Whites				
Not good at school work	30	6	30	25
Want to get married	14	3	2	0
Want to get a job	7	9	13	0
Want to learn a trade	10	37	4	13
Family not able to pay	23	8	14	37
Work to help family	0	*	6	0
Don't like school	10	13	23	0
Other reasons	6	24	8	25
Negroes				
Not good at school work	26	10	15	46
Want to get married	0	0	0	0
Want to get a job	51	15	34	0
Want to learn a trade	6	45	3	54
Family not able to pay	11	13	33	0
Work to help family	0	0	0	0
Don't like school	6	6	6	0
Other reason	0	10	9	0

with school work are indicated by the few Negro mothers answering the question. These reasons are different than the reasons given by the mother when both mother's and youth's aspirations agree. The whites in this subgroup have mothers who are most likely to mention either difficulty with school work or subject's dislike of school. Mothers of Negroes in this subgroup are most likely to mention desire of the youth to get a job or the inability of the family to pay for a college education.

While these results are not entirely inconsistent with the observations concerning reasons for plans described in Appendix B of this report, certain differences are apparent. The reasons given by all whites not expecting to attend college (rather than just whites whose mothers expect them to go to college) more often include difficulty with school work or desire to get a job. Negroes not planning to attend college, whose mothers expect them to attend, mention "learn a trade" with greater frequency that all Negroes who don't plan to go to college. Negroes whose mothers agree with them that they will not go to college are much more likely to mention reasons like desire to get a job or not good at school work (than are all Negroes not planning to attend college).

Although it is inappropriate to draw any firm conclusions from these skimpy data, it could be said that in those cases in which the expectations of the mother and the plans of the youth do not agree because the mother has college expectations and the youth does not, the youths are committed to alternate goals, primarily getting a job or learning a trade. When the aspiration levels are reversed, the mother is more likely to mention the youth's difficulty with school work or the inability of the family to pay the cost of sending the youth to college. When both the mother and the youth agree that he will not go to school, both the mother and the youth are likely to mention dislike of school and difficulty with school work as reasons. One would like to see a new study in which the formation of plans and the rationalizations for plans are surveyed as they emerge within the family setting.

The next chapter will be concerned with the relationship between plans and actions to prepare for college. Specifically, the chapter will be concerned with the effect of subject's and mother's aspirations and other characteristics on the chances that youth will be enrolled in a college preparatory curriculum.

Chapter VI

COLLEGE PREPARATORY CURRICULUM AND ASPIRATIONS OF YOUTHS AND MOTHERS BY CHARACTERISTICS OF SUBJECTS, MOTHERS AND PEERS*

Introduction

While the relationship between college plans and various characteristics of individuals and groups has received considerable attention as noted in the previous chapters, the relationship of these same characteristics to types of curricula in which pupils are enrolled has received little attention. (McGlinchey, 1944; Cass, 1955; Ramsøy, 1965; Yevak, 1967) Yet it seems obvious that success in college, even admittance to some colleges, hinges upon the student having participated in a college preparatory curriculum. The choice to go to college or not go to college can be expressed on a questionnaire form and still be somewhat independent of the persons' attending college or finishing college (Folger and Nam, 1967: pp. 57-67; Sewell and Shah, 1967). The type of curriculum in which a person is enrolled represents a behavioral commitment to a particular kind of academic preparation. It represents a decision which presumably is the outcome of interaction between the youth, his teachers, his parents, a guidance counselor in some cases, and his peers. (Cobb, 1966) Natalie Rogoff Ramsøy has shown that whether or not a student is enrolled in a particular kind of curriculum is also partially a consequence of what choices are available to students in his school. (1965) This is a study of race differences in the relationships between enrollment or nonenrollment in a college preparatory curriculum and selected characteristics of the youth, his mother, his peers, and his school.

It has been noted in the previous two chapters that relationships between the educational plans of subject and other characteristics are different for Negroes and whites. This part of the total investigation involves identifying certain characteristics which are associated with being enrolled in a particular curriculum and then determining whether or not predictors of curriculum choice are the same for Negroes and whites. Is there a difference between Negroes and whites in the relative strengths of relationships between these characteristics and curriculum choice? The discussion will first consider the dependent variable, curriculum; second, it will cover some characteristics assumed to be related to curriculum choice; finally, it will consider possible sources of Negro-white differences in rates of enrollment in college preparatory or other type of curriculum.

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*This chapter is by Lewis Rhodes and William T. Gustavus.

Although the concept of curriculum may seem rather simple at first glance, there exists such a tremendous variety of approaches to arranging courses and course content across the United States so that it is difficult to establish what terms like "college-preparatory" or "vocational" mean as they are applied in the many different school systems. The present analysis tends to partially side-step the issue of what the various curricula are by using a coarse dichotomy of "college preparatory" versus "not college preparatory." The term "college preparatory curriculum" usually refers to a body of courses which include English composition and literature, foreign languages, mathematics (particularly algebra, geometry, and trigonometry); physical sciences (usually physics, chemistry, or biology); and social studies. (Ramsøy, 1965) The origin of this particular body of course content lies in the universities and colleges themselves who set admission requirements. (Campbell, Cunningham, and McPhee, 1965, p. 457) Although the "college preparatory curriculum" includes the above mentioned subjects (and others not mentioned) it should be noted that the number of years of English, mathematics, languages, etc. varies from one state to another and even from one secondary school system to another. Since data are lacking concerning what courses an individual subject has taken or is taking, the analysis will have to rest upon the principal's report that the subject is in a "college preparatory curriculum" or in any one of several other curricula (general, commercial, agricultural, or vocational). If this definition of curriculum type seems troublesome, it should be remembered that colleges and universities also vary in their entrance requirements. Since the interest, relative to the total report, is whether or not Negro and white students are enrolled in the sort of program that would enable them to enter some college if they so desire, then indication of enrollment in any sort of college-preparatory curriculum should be sufficient for this purpose. At least one investigator has reported that the college-preparatory curriculum may involve more (perhaps many more) academic courses than many colleges require for entrance. (Douglass, 1968) That is, students who intend to go to one of the "better" universities may take more academic subjects than would ordinarily be required in order to satisfy the difficult entrance requirements of the "best" schools. The extent to which this pattern holds for schools other than those observed by Douglass is problematic.

It seems likely, however, that students enrolled in a college preparatory program of any school would be eligible to enter some colleges which have minimal entrance requirements. It has been noted by some observers that the term "college preparatory" is not very informative given the different courses included in the program (e.g.: Honors English, General English, Basic English, etc.) and the different kinds of colleges (four-year, two-year, etc.) (Lessinger, 1965) In any case, it will be necessary to employ the college preparatory designation since the data do not permit any further breakdown.

The literature regarding social factors affecting curriculum choice is rather skimpy. That is, there exists a great body of writing from the view point that there are courses which the average child, or various types of children ought to have, but there have been few studies of characteristics of individuals or groups which lead certain kinds of students to select certain types of curricula. It would not be unreasonable to assume that the same kinds of characteristics which are found to be related to aspirations should also be related to choice of curriculum.

The literature of guidance counseling seems to be concerned with steering the individual student towards some career (hence, a given curriculum) which is appropriate to his intellectual ability and his personality organization. On the basis of this literature, it would seem appropriate to take intelligence test score into account. That is, one would expect the students with the higher levels of measured ability to be more likely to be enrolled in the college preparatory curriculum while students with lesser ability would be more likely to be enrolled in some other curriculum. One study indicates that the pupils themselves agree that the college preparatory curriculum is the most difficult (Coll and Cardozier, 1966). In this same study, students in the college preparatory curriculum rated themselves as the best students while students in the general curriculum rated themselves lower than other students in other curricula rated themselves. Another study by M. E. Yevak traced curriculum enrollment over time and found that there was a decrease between grades nine and twelve in the percent of pupils enrolled in the college preparatory curriculum. (1967) The weaker students tended to change over to the general curriculum.

One may also ask what factors other than ability and personality could be related to curriculum choice. There is a study in which students were asked which person had the greatest influence on their choice of curriculum. (Cobb and Cardozier, 1966)

Students in that study were most likely to mention themselves. Those who were enrolled either in a college preparatory or a commercial curriculum were next most likely to mention their mother. Subjects enrolled in a vocational curriculum were most likely to mention their teacher. Subjects were much more likely to mention either their mother or a teacher than they were to mention their father as influencing their curriculum choice. Suppose that one assumes that when the subject mentions himself as influencing his choice of curriculum, it represents either a naive response or else diffuse influence from a number of different persons. Then diffuse influence is most important, and mother's influence is next most important in the sample of 9th and 12th graders studied by Coll and Cardozier.

Although it is difficult to make any inferences about causality, it should be reasonable to expect a high relationship between educational plans of subject and type of curriculum. Thus, subjects who intend to go to college should be more likely to be enrolled in a college preparatory curriculum. Again, it is necessary to note that a youth can hope to be admitted to many colleges even though he has graduated from a "general" rather than a "college preparatory" curriculum. (Clarke and Gelatt, 1967; Douglass, 1968) Also, some subjects start out to go to college and enroll in a college preparatory curriculum and later switch to a general curriculum or vice versa. There are some subjects who do not intend to go to college but who nevertheless enroll in a college preparatory curriculum. Conversely, there are many subjects who say they intend to go to college do not enroll in a college curriculum. The study by Ramsøy suggests that the latter is true of a large number of students in the United States. (1965)

Part of the analysis presented in this chapter will be concerned with evaluating the extent to which there is association between type of curriculum in which the subject is enrolled and the subject's plans as cross-classified by his mother's educational expectations for him. Given the foregoing remarks, it seems likely that subjects who plan to go to college themselves and whose mothers expect them to go to college would be most likely to plan to attend college while subjects who do not plan to go to college and whose mothers do not expect them to go would be least likely to be enrolled in a college preparatory curriculum. Again, one would not expect to find one-to-one correspondence between plans and curriculum. A study by H. A. Dole shows that there is imperfect correspondence between occupational goals of students and the kind of curriculum in which they are enrolled. (1963) Eighty percent of the

Hawaiian students in a scientific-type, college preparatory curriculum and 57 percent of the subjects in a regular-type college preparatory curriculum expected to have professional jobs. However, 21 percent of subjects in the technical curriculum and 27 percent of the subjects on the business curriculum also expected to have professional jobs.

It is also possible that mother's educational attainment could have a bearing on the type of curriculum in which the subject is enrolled. The connection seems most obvious in the case in which the mother herself has attended college. Presumably she would be better able to help the child select the kinds of courses which would facilitate his attendance at college. Also, mother's educational attainment provides some clue as to the traditions of educational attainment which hold in the youth's family. Mother's educational attainment is introduced into the analysis as a test variable to test whether or not the relationships between plans, expectations and choice of curriculum are a consequence of mother's educational experience or are independent of it.

Finally, it seems obvious that whether or not a student enrolls in any given kind of curriculum is partly a function of what kind of curricula are available in the school that he attends. One nationwide study suggests that the extent to which vocational courses are available across the United States affects the total proportions of Negro and white students who will be enrolled in such courses. (Coleman, _et_ _al_., 1966, p. 545) Unfortunately, there are no data from the parent study upon which this report depends concerning what curricula are available in the schools which each subject attends. This lack of data need not handicap the analysis too much, if one is content to stick with the dichotomy of college preparatory versus not college preparatory. On the assumption that schools which have the majority of their pupils going to college will have college preparatory programs, the characteristic, _principal's estimate of percent of seniors in the school going on to college_, will be used in this analysis to provide some indication of the kind of school which the subject attends.

It should be noted that there is wide variation from school to school in the percent of seniors going on to college and in the percent of the student body enrolled in college preparatory curricula. In Yevak's study from two-thirds of the seniors to 80 percent of the 9th graders were enrolled in a college preparatory curriculum, (1967); in the study by Clarke and Gelatt of Palo Alto High School 87 percent were in the college preparatory curriculum, (1967); in the study by Cobb and Cardozier, only 26 percent of the graduating class went on to college and a minority of subjects were enrolled in the college preparatory course. (1966) John C. Flanagan and others found that about 48 percent of the boys and 38 percent of the girls in a nationwide sample of high school students were enrolled in a college preparatory curriculum. (1964) Because of the small number of cases, sex was not included as a control variable in the present analysis. The small number of cases was produced by the decision to exclude cases with no principal's estimate of percent going on to college.

One other factor to be included in the analysis is best friend's plans to attend college. Ideally, one would have liked to have best friend's curriculum. On the assumption that teenagers seek to take the same classes as their friends, it seems likely that best friend's curriculum could have some consequences for a subject's decision to take one course of study rather than another. In the absence of such information, best friend's educational plan is taken as an indicator of whether or not the best friend is more or less likely to be enrolled in a college preparatory curriculum. It must be recognized, of course, that there is no exact correspondence between plans and curriculum as the subsequent analysis will show.

There are several studies which suggest that a multivariate analysis is useful in predicting choice of curricula. John C. Cass did a study of 466 tenth-graders in nine Maine secondary schools. (1955) The curricula offered were "college preparatory, general, commercial, home economics, industrial arts, and agriculture." This study was the most elaborate of the curriculum studies. Cass used eighteen variables in his analysis: intelligence (measured by the Otis Quick-Scoring Mental Ability Test); interest (all ten areas of the Kuder Preference Record Form CM); mechanical aptitude (from the Bennet and Fry Mechanical Comprehension Test); clerical aptitude on numbers and names (from the Minnesota Clerical Test); spatial relationships (from the Minnesota Paper Form Board); age, sex, and family income.

Cass found that first in importance for determining curricular choice was sex, i.e., the boys chose the industrial arts and agricultural curriculum whereas the girls chose home economics. A small fraction of the boys chose the commercial curriculum, while boys and girls in nearly equal proportions selected the college preparatory or general curriculum. Next in importance in differentiating the college preparatory from the other curricula was age, and after that came family income. Cass demonstrates that "non-intellectual variables" (such as sex, age, family income, etc.) are also useful as predictors of curriculum choice.

Also the previously cited study by Fevak involves a multivariate analysis of data for 140 eighth-grade students in Wilmington, Delaware. These students are from the middle economic levels and were offered the curriculum choices of college preparatory, commercial, general, or vocational. The research design involved following these students throughout their high school career and determining what intellectual and non-intellectual variables which were associated with being "achievers" (those who encountered no academic difficulty but remained in their initial choice), and "changers" (those who changed their curriculum). As might be expected, the majority of these students initially selected college preparatory as their curriculum. To sum up the findings of this study, all intellectual variables tested (e.g., I.Q., reading skill, arithmetic skill, language skill, etc.) proved to be positively and significantly related to success within the college curriculum. None of the non-intellectual variables (family background, school discipline, etc.) tested for "persisters" and "changers" proved significant. The conclusion reached was that academic skills, especially reading, arithmetic, and language, were related to achievement and persistence in curriculum choice.

An earlier study by McGlinchey studied 243 ninth-grade students of the junior high schools in Arlington, Massachusetts. She was attempting to predict patterns of ability as demonstrated by students who chose different curricula. The four curricula choices in Arlington were College I (requiring Latin), College II (not requiring Latin), Commercial and Civic. She examined twelve variables in relation to these different curricula: sex, age, ninth-grade social studies marks, verbal ability, quantitative ability, home background (no specific index), practical-arts election, extracurricular participation, and personality adjustment. McGlinchey came to the conclusion that a large number of variables is not necessary in predicting curriculum choice and that it is possible to differentiate between patterns of ability shown by students who choose different curricula in secondary school. "Intellectual variables" (I.Q., reading, writing and language skills) were found to be predictive of persistence and achievement in two years of college preparatory courses. These three studies are relevant for the present investigation in that they demonstrate that academic ability and other characteristics are important in predicting choice of curriculum and that some form of multivariate analysis is needed to unscramble the effects of various characteristics on chances of being enrolled in a college preparatory curriculum.

Method

The Subsample - The following analysis involves only a subset of cases from the total sample. The analysis is restricted to those cases for whom information was received from the principal of the school which the subject attended as to the percent of seniors in that school going on to college. These data are available for 56 percent of the cases. The remaining 44 percent of the cases do not have this information because in 30 percent of all cases the principal did not return any of the questionnaire forms (Forms CPS 554 and 555; see Appendix A) and in an additional 14 percent of all cases the school did not have a class of graduating seniors or the principal did not answer this particular item. Cases were adjusted for relationship between geographical distribution and the other characteristics as part of each step in the multiple-classification analysis in order to reduce the selectivity that this high nonresponse rate represents. The exclusion of these cases seems to be justified by purpose of analysis. That is, schools which do not have a twelfth grade class are also schools which are least likely to have college preparatory curricula. It is also obvious, of course, that excluding cases with no principal's forms will serve to reduce the no information rate on other items which come from those same forms such as curriculum in which subject is enrolled and his intelligence test score.

There is only one new item in this analysis which is not described elsewhere in the report. This is the item on subject's curriculum which is found on the first page of Form CPS-555. (See Appendix A). The item asks: "In which type of curriculum is (or was) this pupil enrolled?" The response categories and percent in each are:

"Pupils at this grade level are not assigned to a curriculum."(13%)
"College preparatory (academic)" (38%)
"General" (34%)
"Commercial (business)" (8%)
"Agriculture" (1%)
"Vocational (other than agriculture)" (3%)
"Other______________________________" (3%)
(Specify)

The percentages are based on the two-thirds of the cases with curriculum information.

There is some difference by race and sex. Forty-one percent of the white males and 39 percent of the white females are in the college preparatory curriculum; 35 percent of the white males and 31 percent of the white females are in the "general" curriculum. The figures are quite different for Negroes: 16 percent of the Negro males are in the college preparatory curriculum and 47 percent are in the general curriculum; 18 percent of the Negro girls are in the college preparatory curriculum and 38 percent are in the general curriculum. These figures are not too different from those reported in the Project Talent study. (Flanagan, et al., 1964) That study did not include race as a variable, but 48 percent of the males and 38 percent of the females were enrolled in a college preparatory curriculum. The Project Talent study includes only high school students. If eighth graders or persons attending lower grades are removed from the CPS sample, then the comparable percentages for males and females are 50 percent and 45 percent, respectively. Whether or not the higher percentages of persons enrolled in the college preparatory curriculum for the CPS sample represents an increase between the time of the Project Talent Study and the present study is a matter for conjecture. It is probable that the high figures for the CPS sample reflect the bias introduced by the high nonresponse rates for principals in the CPS study. Certain adjustments and selections are introduced in an attempt to reduce this bias.

Several selections were made in order to reduce variation by age and grade in school. Only cases in grades nine through twelve were selected for analysis, since two-thirds of the persons enrolled in grades below the ninth grade were classified as not being assigned to a curriculum. Also, only those cases of subjects within the age range of fourteen through seventeen were included in the analysis. The intent was to partially correct for the dropout selectivity in the older age groups and also to eliminate the older subjects who are age-grade retarded. Finally, the selection procedure includes only those cases for whom data are available from the principals report concerning the percent of graduating seniors in the student body who go on to college. It should be noted that this criterion automatically excludes all cases of subjects attending schools which have no twelfth grade as well as students for whom no principals reports were received. Thus, the analysis reported in this chapter deals with about half the number of cases used in the previous chapters of this report. Unfortunately the data are better for the more numerous whites than for the less numerous Negroes. The cases selected for analysis include 52 percent of the white sample but only 34 percent of the

Negro sample. This race difference is partially a reflection of greater age-grade retardation in the Negro sample and partially a reflection of the high nonresponse rate for principals of schools attended by Negroes.

The other characteristics which are considered in relation to curriculum are measured the same way as indicated elsewhere in the report. (See Chapter II and other places in which each of these characteristics are introduced into the analysis.) Differences between the distributions for white and Negro subjects in the total sample and the distributions for reduced sample used in this chapter can be observed by comparing the first columns of Tables 29 and 32 in the case of whites and first columns of Tables 30 and 33 in the case of Negroes. The comparisons indicate that a higher percent of the white subjects and their mothers have college aspirations in the subsample than in the total sample. The same is true for Negroes. The distributions for the total sample and the subsample according to mother's educational attainment, best friend's plans, and percent of student body going to college are roughly comparable in the case of whites and in the case of Negroes. It will be necessary to keep in mind that subgroup numbers are small if one wants to make anything out of differences in percent enrolled in college curriculum for subgroups described by aspiration or some other characteristic.

The multiple classification technique was again employed in the analysis. The only difference in the procedure used in this chapter is that residence is always used as an adjustment factor in this set of analyses but the deviations by residence are not shown in the tables. To have done so would have doubled the size of the tables. Perhaps it will be sufficient to remark that the differences between the unadjusted deviations from the grand college-curriculum rate and the deviations from that rate adjusted for place of residence are minor in the case of whites, and substantial for certain categories of Negroes. Deviations in college curriculum rates for Negroes by no information on either I.Q. score or mother's educational attainment were reduced when adjusted by residence. Deviations from the grand curriculum rate were increased by adjusting for residence in the subgroup of Negro pupils from schools where more than half of the seniors go on to college.

Results - Looking first at the simple relationships between chances of being enrolled in a college preparatory curriculum and each of the other characteristics, it can be seen that there is a relationship with each characteristic. About 62

Table 32

UNADJUSTED AND ADJUSTED* DEVIATIONS FROM THE GRAND COLLEGE PREPARATORY CURRICULUM RATE FOR WHITES SUBJECTS BY I.Q., SUBJECT'S AND MOTHER'S PLANS, MOTHER'S EDUCATION, BEST FRIEND'S PLANS, AND SCHOOL CONTEXT

Characteristics	% in category	Adj. for Residence	Adjusted Deviations from the Grand College Prep. Curriculum Rate (42.4%)							
			I.Q.& Subj. Mother Aspir.	I.Q.S. M.Aspr. Mother Educ.	I.Q.S. M.Aspr. Best Fr. Plans	I.Q.S. M.Aspr. P.go to college	I.Q.S. M.Aspr. M.Educ. B.Fr.Pln	I.Q.S M.Aspr. M.Educ. P.go cl.	I.Q.S M.Aspr. B.Fr.Pl. P.go cl.	AII Char-acter-istics
Intelligence Test Score										
Top 4 Stanines	48	19.9	14.6	13.8	14.4	14.5	13.6	13.7	14.2	13.5
Bottom 5 Stanines	34	-19.6	-12.5	-11.6	-12.3	-12.2	-11.5	-11.5	-12.0	-11.4
No information	18	-16.0	-15.5	-14.9	-15.1	-15.5	-14.7	-15.0	-15.2	-14.7
Subject's Plan; Mother's Expectation										
Both: go to college	52	18.2	15.0	13.8	13.5	14.5	12.7	13.4	13.1	12.4
Subj.: col.; mother: not	15	.7	.4	.3	.6	.0	.5	.0	.2	.2
Subj.: not; mother: col.	4	-16.8	-13.3	-13.7	-13.1	-12.8	-13.7	-13.4	-12.7	-13.3
Both: not go to college	29	-29.7	-24.4	-22.2	-22.0	-23.4	-20.4	-21.5	-21.2	-19.8
Mother's Education										
8th grade or less	19	-19.5		- 7.5			- 6.9	- 7.1		- 6.6
Grades 9-11	19	-12.1		- 5.6			- 5.2	- 5.4		- 5.0
Grade 12	44	5.4		.9			.8	.9		.8
Any college	15	24.1		11.2			10.4	10.4		9.6
No information	3	- 2.6		12.7			12.8	12.7		12.8
Best Friend's Plan										
Go to college	54	11.8			3.9		3.3		3.7	3.1
Not go to college	46	-14.0			- 4.7		- 3.8		- 4.6	3.6
Percent Going to college										
Less than 50%	52	- 7.4				- 4.0		- 3.3	- 3.7	- 3.1
50% or more	48	8.1				4.3		3.6	4.0	3.4

* Adjusted by multiple classification

Table 33

UNADJUSTED AND ADJUSTED* DEVIATIONS FROM THE GRAND COLLEGE PREPARATORY CURRICULUM RATE FOR NEGROES SUBJECTS BY I.Q., SUBJECT'S AND MOTHER'S EDUCATION, BEST FRIEND'S PLANS, AND SCHOOL CONTEXT

Characteristic	% in Category	Adj. for Residence	Adjusted Deviations from the Grand College Prep. Curr. rate(20.2%)							
			I.Q.& Subj. Mother Aspir.	I.Q.S. M.Aspr. Mother Educ.	I.Q.S. M.Aspr. Best Fr. Plans	I.Q.S. M.Aspr. P.go to College	I.Q.S. M.Aspr. M.Educ. B.Fr.pln.	I.Q.S. M.Aspr. M.Educ. P.go cl.	I.Q.S. M.Aspr. B.Fr.pln. P.go cl.	All Characteristics
Intelligence Test Score										
Top 4 stanines	13	5.1	2.5	4.6	4.5	4.4	6.0	5.7	6.9	7.7
Bottom 5 stanines	49	4.5	5.1	4.2	5.1	5.2	4.3	4.2	5.2	4.4
No information	38	- 7.4	- 7.2	- 6.8	- 7.9	- 8.0	- 7.5	- 7.2	- 8.9	- 8.1
Subject's Plan; Mother's Expectation										
Both: go to college	42	12.3	12.1	9.1	15.6	10.9	12.8	8.7	14.6	12.6
Subj.: col., mother: not	16	- .6	1.0	4.4	.6	1.2	3.8	4.4	.9	3.7
Subj.: not; mother: col.	8	- 7.7	- 8.0	- 8.9	- 8.5	- 9.0	- 9.5	- 9.7	- 9.8	-10.5
Both: not go to college	33	-13.4	-13.8	-11.5	-18.0	-12.2	-15.7	-10.8	-16.5	-15.2
Mother's Education										
8th grade or less	43	- 7.2		- 5.4			- 5.2	- 4.5		- 4.0
Grades 9-11	29	- .8		.6			- .9	.8		- .7
Grade 12	18	- 1.7		- 5.2			- 3.9	- 6.0		- 4.8
Any college	7	47.9		38.3			37.5	34.1		31.9
No information	3	8.4		13.0			18.2	12.4		17.9
Best Friend's Plan										
Go to college	57	3.3			8.4		8.6		9.5	9.4
Not go to college	43	- 4.6			-11.3		-11.6		-12.8	-12.7
Percent Going to College										
Less than 50%	74	- 5.1				- 4.2		- 2.8	- 5.1	- 3.7
50% or more	26	14.4				11.8		7.9	14.5	10.5

*Adjusted by multiple classification

percent of white subjects in the high-I.Q. subgroup are enrolled in the college preparatory curriculum while only 23 percent of the low I.Q. subgroup is enrolled in the college preparatory curriculum. In the case of Negroes, on the other hand, there is little difference in college-prep rates of high-I.Q. and low-I.Q. students while those who have no I.Q. test scores are below the grand rate.

There is also a relationship between parent-youth aspirations and chances of being enrolled in a college preparatory curriculum. When both the mother and the youth have college aspirations, the youth is more likely to be in a college-prep curriculum. The rate is over 60 percent for whites and over 32 percent for Negroes. When neither parent nor youth has college aspirations only about 13 percent of the whites and 7 percent of the Negroes are enrolled in a college-prep curriculum. In those cases where the subject plans to attend college but his mother does not expect him to go, the chances of being enrolled in a college preparatory curriculum are the same as for all whites or for all Negroes. If the subject does not plan to attend college but his mother expects him to go, the college-curriculum rates for these small subgroups are below the grand rate, particularly in the case of whites.

Mother's educational attainment is also related to chances of being enrolled in a college preparatory curriculum, particularly in the highest or lowest categories of mother's attainment. The difference in college-prep rates by mother's educational attainment is greater for Negroes than for whites. Only 13 percent of the Negroes whose mothers have an eighth grade education or less are enrolled in the college-prep curriculum; over 78 percent of those whose mothers have been to college are enrolled in a college preparatory curriculum. The comparable rates for whites are 23 percent and 66 percent. It should be noted that students of both racial categories whose mothers finished high school have college plans rates near the grand rate.

Best friend's college plans make somewhat more of a difference for whites than for Negroes while principal's estimate of percent going on to college makes more of a difference for Negroes than for whites, particularly for Negroes attending schools where more than 50 percent of the seniors go on to college.

Having shown there is variation in college preparatory enrollment rates by intelligence test scores, aspirations, mother's educational attainment, best friend's educational plans, and college-attendance rate of the school taken one at a time, the combined effects of these characteristics will be examined. Intelligence test score and residence are carried along as adjustment factors in each of the multivariate adjustments.

It can be seen in Tables 32 and 33 that the effects of intelligence test score and of mother's and subject's aspirations on chances of being enrolled in a college preparatory curriculum are relatively independent of one another and of the other control variables. Coadjusting curriculum rates by intelligence and aspiration (and, of course, residence) results in almost no difference in the unadjusted and adjusted rates for Negroes and very little difference in the unadjusted and adjusted rates for whites, regardless of whether three or four characteristics are used in the adjustment process (see top seven rows of Tables 32 and 33). Simultaneously adjusting curriculum rates by all characteristics serves to reduce variation in curriculum rates by aspiration for whites; simultaneous adjustment for all characteristics serves to increase variation by aspiration in the case of Negroes.

The counter effects of adjusting variation in curriculum according to mother's education, best friend's plan and percent going to college by intelligence test score and subject's and mother's aspiration are quite marked in the case of whites. (See columns 4, 5, and 6 of Table 32) Variation in curriculum by mother's education is reduced by more than half. Variation in curriculum by best friend's plans is reduced by two-thirds, and variation in curriculum by percent going to college is reduced by almost one-half. There is further reduction in the effects of these three characteristics on curriculum when they are adjusted for interrelation with all the other characteristics (see last column of Table 32).

These observations suggest that most of the contribution that mother's education, best friend's plans, and percent going to college make to prediction of curriculum is a result of the intercorrelation of these characteristics with subject's and mother's aspirations and to a lesser extent with intelligence. Although deviations from the grand rate for college curriculum by intelligence test score and aspirations are also attenuated when adjusted for their interrelation with any or all of the other characteristics, their effects are by no means reduced as much as was observed for their counter effect on the other variables.

There are certain differences between whites and Negroes in effects of coadjustment. The results of coadjusting deviations from the grand college preparatory curriculum rate according to intelligence test score, aspirations, mother's education, best friend's aspiration and school context are quite different for Negroes (See Table 33). There is some slight attenuation in the effect of I.Q. score on curriculum when adjusted for mother's expectation and subject's college plans. The counter effect of intelligence on aspirations is almost negligible. The effect of mother's education on curriculum is reduced by about a fifth when adjusted by I.Q. and aspirations. The effect of best friend's plans on curriculum is actually increased by about 50 percent when I.Q. and aspirations are entered in the adjustment, indicating some negative correlations between these factors, best friend's plans and curriculum. The effect of adding school context is negligible regarding deviations in curriculum according to I.Q. score and aspirations. However, the counter effect of these variables on the relationship between context and curriculum is to reduce the variation by about one-fifth.

If multiple classification is used to simultaneously adjust the effects of all categories of all characteristics on curriculum for Negroes, the results are appreciable in the case of intelligence, mother's education, and especially best friend's plans. (See last column Table 33.) The latter assumes greater importance as a predictor of curriculum, suggesting that any consequence of having a best friend who plans to go to college is partly a consequence of intelligence, subject's and mother's aspirations and the college going rate for the school. One feature of particular importance in the table is the strong independent effect of having a mother who has been to college on the chances that a Negro youth will be enrolled in a college preparatory curriculum. This is much more important than convergence of mother's expectation and subject's plans for college.

Conclusions

In this chapter an attempt has been made to identify some characteristics which are associated with chances that any given student will be enrolled in a college preparatory curriculum. Special attention was given to determine whether or not the same factors which are related to type of curriculum in the case of whites are also related to type of curriculum in the case of Negroes.

Measured intelligence was found to be more related to college-prep enrollment rates of whites than to rates of Negroes. In the case of whites, the relationship between curriculum and intelligence is slightly attenuated when adjusted for the other characteristics while the reverse is true for Negroes. There was some relation between curriculum and aspirations as might be expected. At the gross level of comparison, there is more variation in college-prep rate by subject's and mother's aspiration in the case of whites than in the case of Negroes. After simultaneously adjusting the effects of aspirations by the other variables, there is little difference between whites and Negroes.

Best friend's educational plans and percent of seniors going on to college make more of a difference for Negroes than for whites, after simultaneously adjusting the effects of these characteristics for the remainimg characteristics. The implication of this finding is that when effects of intelligence test score and characteristics of mother and subject have been adjusted, the effects of peer and school climate are greater for Negroes than for whites. Negroes in schools where a preponderance of the students go on to college are more likely to be enrolled in a college preparatory curriculum.

Subject's and mother's aspirations are the best predictor of curriculum in the case of whites, but mother's educational attainment is the best predictor of curriculum in the case of Negroes. Looking at the college-prep curriculum rates which have been adjusted for the effects of all the other characteristics, there is no difference between whites and Negroes if the mother has gone to college.

Taken together, the findings in this chapter suggest that chances of being enrolled in a college preparatory curriculum are related to some of the same characteristics as college aspirations. Differences between Negroes and whites are much greater when it comes to type of curriculum than in the case of aspirations. That is, Negroes are only slightly less likely to plan for college than whites, but they are much less likely to be enrolled in a college preparatory curriculum. The only exception occurs in subgroups with college-educated mothers where the adjusted rates for Negroes and whites are the same. Since peer plans and college going rate of school make some difference for Negroes, it seems likely that desegregation of Negroes could increase Negro enrollment in the college preparatory curriculum.

Chapter VII

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Conclusions - This study has the task of examining the relationship between the adolescent's educational plans as reported by the adolescent himself and his mother's educational expectation for him as reported by her. The relationship was tested to see if it was spurious when other characteristics which are related to both plans and expectation are controlled. Particular attention was given to Negro-white differences in this relationship. Finally, some tests for interaction were included to see if the effects of some characteristics were additive with mother's expectation on subject's educational plans.

The results of this study indicate that there is a close relationship between subject's educational plans and mother's educational expectation for the subject. In fact, mother's expectation is the best predictor of subject's plans out of some seventeen characteristics that were examined. These other characteristics included some that have received a great deal of attention in the literature on educational aspiration. Intelligence test score, for example, has received continuous attention as a predictor of educational aspiration. (Uzell, 1961; Cowhig and Nam, 1963; Herriott, 1963; Cohen, 1965; Pavalko and Bishop, 1966; Sewell and Shah, 1967; Sewell and Shah, 1968A) However, the relationship is far from perfect. In this study two-thirds of the high I.Q. group plans for college, but two-fifths of the low I.Q. group plans for college. If mother expects that they will go to college, three-fourths of the low I.Q. group plans to go to college. If mother does not expect college, only about one-fifth of the high I.Q. group plans to go to college. (Negro males are an exception.) It is readily apparent that mother's expectation overrides student ability as it is measured in this study.

There have also been many studies which have emphasized the relationship between various indexes of socioeconomic status and level of educational aspiration. Father's occupation is one index that has been used. (Berdie, 1954, pp. 59-61; Cutright, 1960; Grigg and Middleton, 1960; Pavalko and Bishop, 1966) Occupation of household head was used in this study and the observed relationship is similar to that reported in the other studies. (See Table 4B, p. 66) Sixty-eight percent of suspects from white-collar households expect to go to college, while 46 percent from blue-collar homes and 38 percent from homes where the head is unemployed expect to go to college. However, about 70 percent of the subjects from homes where the head is blue-collar or unemployed plan to go to college if their mother expects them to go and only around 20 percent of the subjects from white-collar homes plan to go to college if their mother doesn't expect them to go. Other socioeconomic indicators have been considered such as income. (Sexton, 1961) Similar results can be observed if family income is used as an index in place of occupation. Seventy percent of those in the"$10,000 plus" category of income plan to attend college, but if mother does not expect college less than 20 percent plan to go. (See Table 21) Conversely, 38 percent of those from the "below $4,000" category of income plan college, but if mother expects them to go then about 70 percent plan to go. The results are also similar if mother's education is used for an indicator of socioeconomic status. (Table 15, p. 103)

On the basis of these observations, it seems obvious that mother's educational expectation for the child overrides socioeconomic status as it is measured in this study. It must be recognized, of course, that more elaborate measures of socioeconomic status might produce different results. However, a composite measure of economic resources of the family produced little attenuation in the relationship between mother's expectation and subject's plans. (Tables 30 and 31, pp. 131-132, 141)

The relationship between plans of youth and the various indicators of school context were disappointing for those who want to make a case for the relationship between school climate and aspiration. (Wilson, 1959; Michael, 1961; Boyle, 1966) It is true that subjects from schools where the majority of graduates go on to college or schools with low dropout rates are somewhat more likely to plan for college. However, the difference tends to disappear when characteristics of the individual and/or his family are introduced as controls. The results tend to be consistent with those of Sewell and Armer (1966). A crossclassification of youth's plans by best friend's plans and college going rate suggests that it is the immediate peer group rather than any school wide influence (at least as indicated in this study) which has an effect on youth's aspiration. (See Table 25, p. 117)

Best friend's plans are the second best predictor of youth's plans. (See Table 4B, p. 66) Over 70 percent of subjects who report that their best friend has college plans plan to go to college themselves; only a third of those whose best friend doesn't plan college plan to go themselves. The relationship between mother's expectation and best friend's plan is additive for whites. (Table 23) In the case of Negroes, high aspiration of friend tends to cancel the effect of low aspiration of mother so that these Negroes are more likely to plan for college than the model predicts.

These results lead one to couclude that *plans to attend or not attend college are probably formulated in the context of primary group interaction in the family and the peer group.* The nature of the relationship between what goes on in the family or peer group and the formulation of plans cannot be specified by use of the data in this study. Furthermore, the demonstration that close relationship exists between the aspirations of adolescents and those of their mothers or friends does not prove that one causes the others or vice versa. Also, the critic may quarrel with the implicit assumption that mother's prediction of whether or not the youth will attend college (i.e., "How much schooling do you really expect this child to get?") represents her aspiration for the child. One can only counter with the observation that mothers are more likely to expect that their children are going to college than the children themselves and that the percent of mothers who expect that their children will go to college (62% for whites and 54% for Negroes) is much higher than the percent of high school *graduates* going on to college in 1960 (42% for whites and 40% for nonwhites). (Folger and Nam, 1967, p. 64) Since only about three-fourths of the whites and a little over half of the Negroes who completed some high school went on to graduate from high school, it seems evident that there is some wishful thinking involved in mothers' expectations. (*Ibid*., p. 45)

Further evidence that there is some element of fantasy in the educational plans of the adolescents and the expectations of their mothers is evident from the results of studying the type of curriculum in which students are enrolled. (Chapter VI) Only 42 percent of the whites and 20 percent of the Negroes are enrolled in a college preparatory curriculum (Tables 32 and 33, pp. 153-154) Only 7 out of 10 high school graduates who had been enrolled in a college preparatory curriculum and only 1 in 5 of those who had been enrolled in some other curriculum attended college in the fall of 1960. (Folger and Nam, 1967, p. 57)

There are, of course, many other limitations of the data presented in this study (lack of adequate measures, high nonresponse rates on some items, etc.) which have been described in Chapter II and elsewhere that lead one to be cautious about the findings listed in this report, particularly those which depend upon data for small subgroups like those of high-income Negroes, whites in schools with a high percent of Negro students, etc. The fact that the findings are consistent with those of the Coleman and Campbell study, the Sewell and Armer study, etc. lends some credence to the conclusions that have been listed.

Implications - The study of aspirations can add to our understanding of how the process of stratification operates in American society. Robert E. L. Faris, in his address to members of the American Sociological Association at St. Louis, noted the importance of studying aspiration in efforts to improve the instructional process in the schools so as to insure a continuous supply of high and conspicuous talent that our increasingly intricate social system will demand. (1961) He states,"We have much reason to believe that aspiration is a controlling variable of importance within the family, peer groups, communities, and other social groupings, and that these groups may affect intelligence upward or downward through supplying of limited aspiration among its members." (1961, p. 840) It would seem that the failure to match talent and aspiration could have several consequences which may produce stress in the American social structure. The failure to attract able students to college and to support their progress through college represents talent wastage that Faris and others decry. The findings of this study support the notion that there are some few able students who choose not to attend college. There are far more who plan to attend college but they are not taking the right courses (Chapter VI) and their parents have made little or no preparation to meet the cost of sending them to college (Appendix B). The results of this study indicates that bright Negroes, in particular, want to go to college, but they will not be able to go unless they receive financial assistance.

However, the results of this study also point to another sort of incongruity between aspiration, ability, and probability of attending college. There are far more subjects who plan for college (and whose mothers expect them to go to college) than there are opportunities for college attendance. Suppose that one defines opportunities to attend college in terms of current enrollment statistics for colleges. There were about four and a half million persons aged 18-24 (mostly in the younger ages) enrolled in colleges, so let this number represent the openings that will be available to the next cohort of college aspirants. Over seven million of the enrollees aged 14-19 (mostly in the younger ages) represented in this survey have college plans.

It seems evident that a large proportion of these are doomed to disappointment. Many of these will not be eligible to be admitted to a college because of poor grades, low entrance examination scores, lack of finances, etc. Even so, it seems evident that there would have to be a great enlargement of the facilities of higher education in order to meet the demand. The orientation of persons in those subgroups which have had lower rates of college attendance in the past (females, Negroes, persons from low income families) toward junior college attendance suggests that this will be where the demand will be greatest. (See Table 5, pp. 75-79)

To sum up the implications for policy, it can be seen that there is a higher proportion of persons in the sample who want to go to college but lack the intellectual ability and/or the financial means to go than there is of persons who have the ability and/or the financial resources but who do not want to go to college. The same thing can be said for parents' aspirations. Although there are a few cases in the sample of bright children whose mothers do not expect them to go to college and who are making no provision to pay for their child's education, there are far more cases of parents who expect their child to attend college even though the child has a low intelligence test score. Some of these parents have regular savings plans to pay for their child's college education (Appendix B). If parents reduce their child's chances of attending college, it is not usually done by the parent failing to hold a high level of educational expectation for the child. The results of this study suggest, but do not demonstrate, that it is the inaction of the parents, well in advance of the time when decisions to attend college are made, that determines the child's level of aspiration and the chances that it will be realized.

Suggestions for Further Research - Suppose one evaluates the findings of this study in terms of their relevance for several alternative models to explain or predict college plans. Let us call the first the realities of the situation argument. This argument holds that differences in educational plans are the direct results of differentials in access to getting a college education.; i.e., those persons who have the most ready access to higher education will be the ones who are most likely to attend college. Conversely, those persons who have the least access will be least likely to plan for college. If this is the most appropriate model, then characteristics like intelligence test score and income should be the overriding factors. The people with the highest intelligence and income will be the most likely to have college plans, etc.

This type of model might be modified to produce a second model which would allow for the fact that there are class differences in opportunity to develop the kind of intellectual ability which insures success in school. This modification assumes that individual ability is a direct quantifiable output of various inputs into the educational experience of the youth. These inputs include what the family does in the way of increasing verbal facility. It assumes that this occurs by both formal training and incidental learning but leans more toward the former. It assumes that the child's success in school is a consequence of conscious attempts by the parents to drill the child, assist with homework, provide supplies and books such as encyclopedias, etc. The family may even hinge immediate rewards on school performance: "You can't go out and play until you do your lessons," "We'll give you a dollar for each 'A' you make," etc. The direction of causation is that high ambition of parents causes action which results in the child doing well in the educational arena, and then he develops a favorable attitude toward education and high aspiration. Thus, his level of motivation is still a consequence of the situation. Although this formulation differs from the first model in that it is not quite so formal (the first model is like the "rational man" notion in economic theory), the emphasis is still one of rationality.

The third model represents something quite different from the first two. It is more cultural and social-psychological. According to this explanation, the youth learns to have a particular level of aspiration which may be more or less independent of his intellectual capabilities, the economic resources of his family, etc. According to this argument, the adolescent wants to go to college because he has been taught that a college education is desirable. In this nonrational model, aspirations are somewhat independent of either abilities or opportunities. This model rejects the notion that the youth surveys his own abilities and the job market and rationally selects an occupation which is consistent with his native ability, the demand for that occupation in the labor market, and his opportunities for first securing the kind of training that the desired job will require. According to this last model, the individual doesn't know what the nature of the market is; he has no realistic appraisal of what his own capabilities are; he doesn't even have a "catalogue" of the opportunities that (by rational standards) are available to him. He only knows those few occupational roles that are part of his immediate experience or that he observes in the course of exposure to mass media. In fact, occupational choices may be very much influenced by the occupational roles displayed on television which have no clear explanation of what the intellectual or educational requisites for these jobs are. According to this model, neither the youth nor his parents have any clear conception of what is involved in getting a college education and/or obtaining a particular job. The past research which involves this model has focused on the value climate of the school. (Wilson, 1959; Michael, 1961; Coleman, 1962; McDill, et. al., 1967) However, the results of the present study indicate that further research should pay closer attention to formulation of plans in the context of the family and the small peer group.

Future research should find better ways of measuring the characteristics used in this study so as to provide a more adequate test of which of the above explanatory models provides the best fit to observed conditions. Also, it seems obvious that a panel study is needed which will follow a cohort of pupils through the total educational experience. Such a study could serve to establish the time order that exists between the plans of youth and the characteristics that have been shown to be associated with such plans.

Recommendations - The results of this study suggest that any attempt to reduce the amount of talent wastage in the process of recruiting the most able youths to get a college education should be directed at the parents of the child as well as the child himself. Such an attempt should occur early in the child's educational experience.

It seems apparent from the results of this study that a large scale program of governmental financing of higher education will not be as effective in attracting able students to higher education as one might expect, since a minority of students and their parents list cost as the main reason that the student will not go to college. It should be noted, however, that there are certain subgroups where additional scholarship funds might have a significant impact. This is particularly true in the case of Negroes. However, the potential recipients of this kind of assistance would have to be advised of the possibility well in advance of high school graduation, since it is evident that many of these students are not enrolled in the type of curriculum which would enable them to maximize the benefit of attending college.

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Appendix A

QUESTIONNAIRES

These are copies of the four special CPS questionnaires which have been reduced in size from eight by ten and a half inches to five by eight inches to meet the margin specifications for the Office of Education reports.

There are two forms which the CPS interviewer left in the household:

Form CPS-551 (9-8-65) This form was to be completed by each person in the household who was between the ages of fourteen and nineteen and who was enrolled in a regular elementary or secondary school.

Form CPS-553 (9-10-65) This form was to be filled in by the mother (or person acting in the place of the mother) of each person in the household between the ages of fourteen and nineteen.

There are two forms which were mailed by the Current Population Survey to the principal of the school in which each 14-19-year-old person in the household was enrolled:

Form CPS-554 (9-14-65) This form asks the principal to give information about the school attended by each enrollee.

Form CPS-555 (10-20-65) This form asks the principal to give information about the enrollee himself.

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON, D.C. 20233

OFFICE OF THE DIRECTOR

Form Approved:
Budget Bureau No. 41-R1221.19

Dear

The Bureau of the Census has been asked by the Department of Health, Education, and Welfare to conduct a survey to provide vitally needed information from parents or guardians, and from the young people themselves, on their educational plans and their attitudes toward school in general. The results of this study will be used in planning for the future educational needs of young people.

Since this study is based on a sample of the total population, it is important that each person fill in and return the questionnaire. Please do so within five days. The enclosed envelope requires no postage. The information you provide will be kept confidential and will be used for statistical purposes only.

Your cooperation in this survey will be greatly appreciated.

Sincerely yours,

A. Ross Eckler

A. Ross Eckler
Director
Bureau of the Census

Enclosure

NOTICE – All information which would permit identification of the individual will be held in strict confidence, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any purposes.

Please check only ONE answer after each question

1. a. Do you expect to finish high school?

1 ☐ Yes *(Skip to question 4)*
2 ☐ No

b. What is the highest grade you expect to finish?

1 ☐ 9th grade or less
2 ☐ 10th grade
3 ☐ 11th grade
(Answer questions 2 and 3)

2. Would you quit school right now if you could?

1 ☐ Yes 2 ☐ No

3. What is the MAIN reason that you don't plan to finish?

1 ☐ I'm not very good at school work
2 ☐ I want to get married
3 ☐ I want to get a job
4 ☐ I want to learn a trade
5 ☐ My family will not be able to meet the cost
6 ☐ I need to work to help family
7 ☐ I don't like school
8 ☐ Other ________________
(Specify)

(Please skip to question 9)

FORM CPS-551 (9-8-65) USCOMM-DC

4. Do you plan to attend a two-year community or junior college?

1 ☐ Yes, definitely
2 ☐ Yes, maybe
3 ☐ No
4 ☐ Don't know

5. a. Do you plan to attend a four-year (or regular) college or university?

1 ☐ Yes, definitely
2 ☐ Yes, maybe
3 ☐ No
4 ☐ Don't know

b. If "Yes, definitely" or "Yes, maybe" how many years of college do you plan to complete?

☐ 1 ☐ 2 ☐ 3 ☐ 4 or more

6. Do you plan to go to a professional school, such as a law or medical school, or to a graduate school?

1 ☐ Yes
2 ☐ No

7. If "No" to questions 4, 5, and 6, do you plan to attend any other school, such as a business college, barber college, technical or trade school, or hospital school of nursing?

1 ☐ Yes
2 ☐ No

8. If you do not plan to go to regular college, what is the main reason you are not planning to go?

1 ☐ I'm not very good at school work
2 ☐ I want to get married
3 ☐ I want to get a job
4 ☐ I want to learn a trade
5 ☐ My family will not be able to meet the cost
6 ☐ I have to work to help family
7 ☐ I don't want to go
8 ☐ There isn't a college near here
9 ☐ Other reason ______________________
(Specify)

9. How much education does your mother (or person taking your mother's place) want you to have?

1 ☐ Doesn't care if I finish high school or not
2 ☐ Finish high school only
3 ☐ Some college but less than 4 years
4 ☐ Finish a 4-year college
5 ☐ Professional or graduate school after college
6 ☐ I don't know

10. Throughout your schooling, have you ever had a teacher you especially liked or admired as a teacher?

1 ☐ No
2 ☐ Yes, one teacher
3 ☐ Yes, two teachers
4 ☐ Yes, three teachers
5 ☐ Yes, four teachers or more

11. Do you think that your teachers have been fair in the way they treated you?

1 ☐ All of them were unfair
2 ☐ Most of them were unfair
3 ☐ About half were fair and half unfair
4 ☐ Most of them were fair
5 ☐ All of them were fair

12. Is your best friend attending school now?

1 ☐ Yes, in high school (grade school)
2 ☐ Yes, in college
3 ☐ Yes, in some other kind of school
4 ☐ No, but he finished high school
5 ☐ No, and he didn't finish high school

13. What is the highest grade or year of school that YOUR BEST FRIEND plans to complete?

1 ☐ Less than high school
2 ☐ Finish high school
3 ☐ Go to college
4 ☐ Finish college
5 ☐ Don't know

14. According to your OPINION, which of these is the BEST way for young people to get ahead in life?
All of these may help but check ONLY the one which you think is best.

1 ☐ Work hard and save money
2 ☐ Have a nice personality and be likeable
3 ☐ Get a college education
4 ☐ Be a person with a special talent such as a good athlete, actor, or singer
5 ☐ There is no way to get ahead in life
6 ☐ Other ______________________
(Specify)

15. How many times have you changed schools (not counting promotions from one school to another)?

0 ☐ Never
1 ☐ Once
2 ☐ Twice
3 ☐ Three times
4 ☐ Four times
5 ☐ Five times or more

16. On an average school day, how much time do you spend studying outside of school?

1 ☐ None or almost none
2 ☐ About ½ hour a day
3 ☐ About 1 hour a day
4 ☐ About 1½ hours a day
5 ☐ About 2 hours a day
6 ☐ About 3 hours a day
7 ☐ 4 or more hours a day

17. Did you go to kindergarten? 1 ☐ Yes 2 ☐ No

This completes the questions. Please put this form in the envelope provided and mail to us (no postage required). Thank you for your cooperation.

FOR CENSUS USE ONLY	Interviewer code	CC 6	CC 13	CC 18	CC 20 W ☐ 0 N ☐ 1 O ☐ 2	CC 21 M ☐ 0 F ☐ 1

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON, D.C. 20233

OFFICE OF THE DIRECTOR

Form Approved:
Budget Bureau No. 41-R1221.19

Dear

The Bureau of the Census has been asked by the Department of Health, Education, and Welfare to conduct a survey to provide vitally needed information from parents or guardians, and from the young people themselves, on their educational plans and their attitudes toward school in general. The results of this study will be used in planning for the future educational needs of young people.

Since this study is based on a sample of the total population, it is important that each person fill in and return the questionnaire. Please do so within five days. The enclosed envelope requires no postage. The information you provide will be kept confidential and will be used for statistical purposes only.

Your cooperation in this survey will be greatly appreciated.

Sincerely yours,

A. Ross Eckler

A. Ross Eckler
Director
Bureau of the Census

Enclosure

NOTICE.– All information which would permit identification of the individual will be held in strict confidence, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any purposes.

FOR CENSUS USE ONLY	Interviewer code	CC 6	CC 13	CC 18	CC 20 W ☐ 0 N ☐ 1 O ☐ 2	CC 21 M ☐ 0 F ☐ 1	CC 24a	CC 24b Y ☐ 1 N ☐ 2

FORM CPS-[illegible]
([illegible])

USCOMM-DC

First we would like to ask you some questions about yourself. Please check only **one** answer after each question, unless otherwise indicated.

1. In what country were you born?

1 ☐ United States

2 ☐ Other *(Specify)* ____________________

____

2. When you began grade school, did you live on a farm?

1 ☐ Yes 2 ☐ No

3. In April 1960, did you live on a farm?

1 ☐ Yes 2 ☐ No

4. According to your OPINION, which one of these is THE BEST way for young people to get ahead in life?
All of these may help but check only the one which you think is best.

1 ☐ Work hard and save money

2 ☐ Have a nice personality and be likeable

3 ☐ Get a college education

4 ☐ Be a person with a special talent such as a good athlete, actor, or singer

5 ☐ There is no way to get ahead in life

6 ☐ Other *(Specify)* ____________________

(Continue with question 5)

5. What is your religion?

1 ☐ Baptist

2 ☐ Methodist

3 ☐ Lutheran

4 ☐ Presbyterian

5 ☐ Episcopalian

6 ☐ Other Protestant *(Specify)* ____________________

____

7 ☐ Roman Catholic

8 ☐ Eastern Orthodox (Including Greek or Russian Orthodox)

9 ☐ Jewish

10 ☐ Other religion *(Specify)* ____________________

____

11 ☐ No religion

6. Is English the only language spoken in your home?

1 ☐ Yes, English is the only language

2 ☐ Another language is spoken sometimes

3 ☐ Another language is spoken most of the time

Now on the following pages, please answer questions 7 to 11 for each child whose name appears at the top of each column.

Line No.	Name	Age	Mother ☐ 1 Father ☐ 2 Other ☐ 3

7. How much schooling do you really expect this child to get? *(Check only one)*

1 ☐ Finish grade school or less
2 ☐ Get some high school
3 ☐ Finish high school
4 ☐ Go to a two-year junior or community college
5 ☐ Go part way through a four-year (or regular) college or university
6 ☐ Graduate from a four-year (or regular) college or university
7 ☐ Get more than four years of college

Answer questions 8 and 9 if you expect your child to go to college.

8. How much of the cost will you be able to meet?

1 ☐ More than half of it
2 ☐ Less than half of it
3 ☐ None

9. If you expect to meet all or part of the cost, how do you plan to meet the cost? *(Check as many as apply.)*

1 ☐ Pay for it from our income at that time
2 ☐ Borrow the money for it
3 ☐ Start saving for it
4 ☐ Have a regular way of saving for it now
5 ☐ Help from scholarship funds
6 ☐ Have made no plans

(Skip to question 11)

Answer question 10 if you do not expect your child either to complete high school or to go to college.

10. What do you think is the MAIN thing that will keep (this child) from going to college?

(Check only one reason.)

0 ☐ Not very good at school work
1 ☐ Wants to get married
2 ☐ Wants to get a job
3 ☐ Wants to learn a trade
4 ☐ Will not be able to meet the cost
5 ☐ Needs to work to help family
6 ☐ Doesn't want to go
7 ☐ Sickness in family or other family problem
8 ☐ There isn't a college near here
9 ☐ Other reason *(Specify)* ____________

11. What is the HIGHEST grade or year of school completed by the father of this child?

1 ☐ Never attended school
2 ☐ Less than eighth grade
3 ☐ Completed eighth grade
4 ☐ Went to high school but didn't finish
5 ☐ Finish high school
6 ☐ Went to college but didn't finish
7 ☐ Graduated from college
8 ☐ Post-graduate college work

Line No.	Name	Age	Mother ☐ 1 Father ☐ 2 Other ☐ 3

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6 ☐ Graduate from a four-year (or regular) college or university
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Answer questions 8 and 9 if you expect your child to go to college.

8. How much of the cost will you be able to meet?

1 ☐ More than half of it
2 ☐ Less than half of it
3 ☐ None

9. If you expect to meet all or part of the cost, how do you plan to meet the cost? *(Check as many as apply.)*

1 ☐ Pay for it from our income at that time
2 ☐ Borrow the money for it
3 ☐ Start saving for it
4 ☐ Have a regular way of saving for it now
5 ☐ Help from scholarship funds
6 ☐ Have made no plans

(Skip to question 11)

Answer question 10 if you do not expect your child either to complete high school or to go to college.

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(Check only one reason.)

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1 ☐ Wants to get married
2 ☐ Wants to get a job
3 ☐ Wants to learn a trade
4 ☐ Will not be able to meet the cost
5 ☐ Needs to work to help family
6 ☐ Doesn't want to go
7 ☐ Sickness in family or other family problem
8 ☐ There isn't a college near here
9 ☐ Other reason *(Specify)* ____________

11. What is the HIGHEST grade or year of school completed by the father of this child?

1 ☐ Never attended school
2 ☐ Less than eighth grade
3 ☐ Completed eighth grade
4 ☐ Went to high school but didn't finish
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Answer questions 8 and 9 if you expect your child to go to college.

8. How much of the cost will you be able to meet?

1 ☐ More than half of it
2 ☐ Less than half of it
3 ☐ None

9. If you expect to meet all or part of the cost, how do you plan to meet the cost? *(Check as many as apply.)*

1 ☐ Pay for it from our income at that time
2 ☐ Borrow the money for it
3 ☐ Start saving for it
4 ☐ Have a regular way of saving for it now
5 ☐ Help from scholarship funds
6 ☐ Have made no plans

(Skip to question 11)

Answer question 10 if you do not expect your child either to complete high school or to go to college.

10. What do you think is the MAIN thing that will keep (this child) from going to college?

(Check only one reason.)

0 ☐ Not very good at school work
1 ☐ Wants to get married
2 ☐ Wants to get a job
3 ☐ Wants to learn a trade
4 ☐ Will not be able to meet the cost
5 ☐ Needs to work to help family
6 ☐ Doesn't want to go
7 ☐ Sickness in family or other family problems
8 ☐ There isn't a college near here
9 ☐ Other reason *(Specify)* ____________

11. What is the HIGHEST grade or year of school completed by the father of this child?

1 ☐ Never attended school
2 ☐ Less than eighth grade
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6 ☐ Graduate from a four-year (or regular) college or university
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Answer questions 8 and 9 if you expect your child to go to college.

8. How much of the cost will you be able to meet?

1 ☐ More than half of it
2 ☐ Less than half of it
3 ☐ None

9. If you expect to meet all or part of the cost, how do you plan to meet the cost? *(Check as many as apply.)*

1 ☐ Pay for it from our income at that time
2 ☐ Borrow the money for it
3 ☐ Start saving for it
4 ☐ Have a regular way of saving for it now
5 ☐ Help from scholarship funds
6 ☐ Have made no plans

(Skip to question 11)

Answer question 10 if you do not expect your child either to complete high school or to go to college.

10. What do you think is the MAIN thing that will keep (this child) from going to college?

(Check only one reason.)

0 ☐ Not very good at school work
1 ☐ Wants to get married
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5 ☐ Needs to work to help family
6 ☐ Doesn't want to go
7 ☐ Sickness in family or other family problems
8 ☐ There isn't a college near here
9 ☐ Other reason *(Specify)* ____________

11. What is the HIGHEST grade or year of school completed by the father of this child?

1 ☐ Never attended school
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3 ☐ Completed eighth grade
4 ☐ Went to high school but didn't finish
5 ☐ Finish high school
6 ☐ Went to college but didn't finish
7 ☐ Graduated from college
8 ☐ Post-graduate college work

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON, D.C. 20233

OFFICE OF THE DIRECTOR

[illegible]

Dear Principal:

The Bureau of the Census is conducting a survey for the Department of Health, Education, and Welfare to obtain vitally needed information from parents and from the young people themselves on their educational plans and their attitudes toward school in general. As an important part of this study, we also have been asked to obtain information about the schools these children attend, as well as their performance in school. The data which you provide, along with that supplied earlier by the parents and the students, will be used in planning for the future educational needs of young people.

We would appreciate your completing both this School Questionnaire and the enclosed Pupil Questionnaire for each of the pupils attending your school who have been included in our survey. We recognize that it may be difficult to provide exact answers to all of the questions. For such cases, please give us your best estimates. The questions may be answered either from your records or from your general knowledge. It is not necessary for you to make a special inquiry to acquire this information.

We are required by law to hold the information you provide absolutely confidential. It will be published only in the form of statistical summaries. No pupil, school, or school system will be identifiable from any reports issued as a result of this survey.

Since this study is based on a sample of the total population, it is important to obtain complete responses from all schools. Please complete and return the questionnaires within 5 days in the enclosed envelope, which requires no postage. If you received more than one School Questionnaire, please mark the second form "Duplicate" and return it with the other completed forms. Your cooperation in this survey will be greatly appreciated.

Sincerely yours,

A. Ross Eckler

A. Ross Eckler
Director
Bureau of the Census

Enclosures

NOTICE – All information which would permit identification of any individual, school, or school system will be held in strict confidence, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any purposes.

[illegible]

1. Which of the following grades does your school include?
(Circle EACH grade you have.)

K 1 2 3 4 5 6 7 8 9 10 11 12

2. Is this a public or private school?

1 ☐ Public 2 ☐ Private

3. If private, is the school –

1 ☐ **Roman Catholic?**
2 ☐ **Other denomination?**
3 ☐ **Other private?**

Please answer each of the following questions either from your records or from your general knowledge. Please enter "0" if the answer is none. (It is not necessary to make a special survey for this study.) Indicate the accuracy of your answer by circling one of the following:

A – VERY ACCURATE
B – REASONABLY ACCURATE
C – ROUGH ESTIMATE

4. How many FULL-TIME TEACHERS are currently assigned wholly to your school?

_____ A B C

Of this number of TEACHERS what percent –

a. are male? ___% A B C
b. are teaching full time for the first time this year? ___% A B C
c. are teaching full time in your school for the first time this year? ___% A B C
d. have been teaching full time for more than 10 years? ___% A B C
e. hold at least a master's degree? ___% A B C
f. are Negro? ___% A B C
g. are Mexican – American or Puerto Rican? ___% A B C
h. are interested in trying out new teaching ideas? ___% A B C
i. voluntarily help students with their school problems during their own free time? ___% A B C

5. How many PUPILS are currently enrolled in your school?

_____ A B C

Of this number of PUPILS what percent –

a. are male? ___% A B C
b. have IQ's greater that 120? ___% A B C
c. have IQ's less than 90? ___% A B C
d. are in a college preparatory program? ___% A B C
e. are one or more grades behind other persons in their age group? ___% A B C
f. are one or more years behind their grade level in reading achievement? ___% A B C
g. went to some other school last year? *(DO NOT include pupils who entered the lowest grade of your school in September.)* ___% A B C
h. are uncooperative with their teachers? ___% A B C

Please estimate the percent of pupils in the following groups on the basis of your present knowledge.

What percent –

i. are Negro? ___% A B C
j. are Mexican – American or Puerto Rican? ___% A B C
k. are Protestant? ___% A B C
l. are Catholic? ___% A B C
m. are Jewish? ___% A B C
n. have a father (or guardian) who is a college graduate? ___% A B C
o. have a father (or guardian) who did not finish high school? ___% A B C
p. have a father (or guardian) who is a white collar worker (professional, managerial, clerical, or sales worker, etc.) ___% A B C
q. have a father (or guardian) who is a factory worker, mechanic, farm worker, etc. – that is, not a white collar worker? ___% A B C

4

6. Was your school in operation in 1960?

1 ☐ Yes *(Go to question 7)*
X ☐ No *(Skip to question 11)*

7. During the 1960-61 school year what percent of the PUPILS attending your school were Negro? ____% A B C

8. During the 1960-61 school year what percent of the TEACHERS assigned to your school were Negro? ____% A B C

9. During the 1960-61 school year what percent of the PUPILS attending your school were Mexican-American or Puerto Rican? ____% A B C

10. During the 1960-61 school year what percent of the TEACHERS assigned to your school were Mexican-American or Puerto Rican? ____% A B C

11. Currently what is the average IQ of pupils in your school? ____% A B C

12. How would you rate the current condition of your physical plant? *(Check one)*

1 ☐ Needs major renovations
2 ☐ Needs minor renovations
3 ☐ In good condition

13. a. Does your school now have a room set aside as a centralized school library?

1 ☐ Yes 2 ☐ No

b. If yes, how many catalogued volumes are there in this library? ______volumes

14. Does your school have a shop with power tools?

1 ☐ Yes 2 ☐ No

15. Does your school have a room used only for typing instruction?

1 ☐ Yes
2 ☐ No
3 ☐ We offer no course in typing

16. How are textbooks provided for your students?
(Check the response which best describes your program.)

1 ☐ All textbooks are free
2 ☐ Rental plan with no waivers of rental fees
3 ☐ Rental plan with fees waived or reduced for certain students
4 ☐ All students buy their own books
5 ☐ Certain students receive books free, but all others buy their books
6 ☐ Students buy some books, receive others free

17. In full-time equivalents, how many teachers do you have in your school who teach remedial reading classes?

1 ☐ None
2 ☐ One, less than full time
3 ☐ One, full time
4 ☐ One, full time and one part time
5 ☐ Two
6 ☐ Three
7 ☐ Four or more

18. During the 1964-65 school year, did your school have a 12th grade?

1 ☐ Yes *(Answer question 19)*
X ☐ No *(Skip to question 21)*

19. How many students graduated from the 12th grade during the 1964-65 school year? ______ A B C

Of this number of graduates what percent –

a. are now enrolled in a four-year college? ____% A B C

b. are now enrolled in a two-year college? ____% A B C

c. went on to some post-high-school education or training other than college, such as beauty school, technical-vocational school, or business school? ____% A B C

20. a. What percent of the BOYS who entered your 10th grade in the fall of 1962 "dropped out" before the graduation of their class in 1965? ____% A B C

Not in operation in 1962 4 ☐
No boys in this school 5 ☐

b. What percent of the GIRLS who entered your 10th grade in the fall of 1962 "dropped out" before the graduation of their class in 1965? ____% A B C

Not in operation in 1962 4 ☐
No girls in this school 5 ☐

21. Information about the person completing this form:

a. Name:______________________

b. Position:______________________

c. In what year were you first assigned to this school?

19______

Budget Bureau No. 41-6561; Approval Expires September 30, 1966

FORM **CPS-555**
(10-20-65)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

PUPIL QUESTIONNAIRE

NOTICE – All information which would permit identification of the individual will be held in strict confidence, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any purposes.

1. Is this pupil currently enrolled in your school?

1 ☐ Yes – *Answer 1a* 2 ☐ No – *Answer 1b*

a. In what grade is he enrolled? __________ grade

b. If no, which of the following best represents his case?

1 ☐ He graduated from school in 19____.

2 ☐ He transferred from this school in the ______ grade.

3 ☐ He "dropped out" of this school in the ______ grade.

4 ☐ We have no record of this pupil having ever attended this school. *(If this is the case, skip to question 12.)*

2. In what grade did this pupil first enter your school?

__________ grade

3. In what manner did this pupil first enter your school?

1 ☐ As a regular member of our lowest grade.

2 ☐ As a transfer student from another school in **this city or county.**

3 ☐ As a transfer student from another school in **this state.**

4 ☐ As a transfer student from another school in **another state.**

4. In which type of curriculum is (or was) this pupil enrolled?

1 ☐ Pupils at his grade level are not assigned to a curriculum

2 ☐ College preparatory (academic)

3 ☐ General

4 ☐ Commercial (business)

5 ☐ Agriculture

6 ☐ Vocational (other than agriculture)

7 ☐ Other______________________
(Specify)

5. In general, how much time outside school hours is (or was) this pupil expected to spend on school work during a school week?

1 ☐ None or almost none

2 ☐ About ½ hour a day

3 ☐ About 1 hour a day

4 ☐ About 1½ hours a day

5 ☐ About 2 hours a day

6 ☐ About 3 hours a day

7 ☐ 4 or more hours a day

APTITUDE TEST SCORE DATA

6. Has this pupil ever taken a group scholastic aptitude or intelligence test?[1]

1 ☐ Yes – *Continue with 6a*
X ☐ No – *Skip to question 7*

a. What is the full name of the most recent of such a scholastic aptitude or intelligence test?

____

b. What edition was it? . . . . ____________
c. In what year was it published? . . . . ____________
d. What level was it? . . . . ____________
e. What form was it? . . . . ____________
f. When was it administered to this pupil? . . . . ____________ *Month/Year*
g. In what grade and month was this pupil at the time this test was administered? ____________ *Grade/Month*
h. How old was this pupil at the time this test was administered? . . . . . . ____________ *Years/Months*

i. What was this pupil's total score for this scholastic aptitude or intelligence test in percentile form based on national norms?
Percentile score . . . . ____________
☐ Not available

j. What was this pupil's total score for this scholastic aptitude or intelligence test in stanine form based on national norms?
Stanine score . . . . ____________
☐ Not available

k. Please provide as many additional representations of this pupil's total score on this scholastic aptitude or intelligence test as are available from your records. ***(Enter NA for scores not available.)***

1. Percentile Band . . . . . ____________
2. IQ Score . . . . ____________
3. Raw Score . . . . ____________
4. Standard Score . . . . . . ____________
5. Scaled Score . . . . ____________
6. Converted Score . . . . . ____________
7. Mental Age . . . . ____________ *Years/Months*
8. Other Score *(Specify)* ____________ ____________
(Kind of Score) *(Score)*

1
2
3
4

READING TEST SCORE DATA

7. Has this pupil ever taken a group reading test (including reading subtest of an achievement battery)?[2]

1 ☐ Yes – *Continue with 7a*
X ☐ No – *Skip to question 8*

a. What is the full name of the most recent of such a reading test?

____

b. What edition was it? . . . . ____________
c. In what year was it published? . . . ____________
d. What level was it? . . . . ____________
e. What form was it? . . . . ____________
f. When was it administered to this pupil? . . . . ____________ *Month/Year*
g. In what grade and month was this pupil at the time this test was administered? ____________ *Grade/Month*
h. How old was this pupil at the time this test was administered? . . . . . ____________ *Years/Months*

i. What was this pupil's total score for this reading test (or subtest) in percentile form based on national norms?
Percentile score . . . . ____________
☐ Not available

j. What was this pupil's total score for this reading test (or subtest) in stanine form based on national norms?
Stanine score . . . . ____________
☐ Not available

k. Please provide as many additional representations of this pupil's total score on this reading test (or subtest) as are available from your records. ***(Enter NA for scores not available.)***

1. Percentile Band . . . . ____________
2. Raw Score . . . . ____________
3. Standard Score . . . . . ____________
4. Scaled Score . . . . . . ____________
5. Converted Score . . . . ____________
6. Grade Equivalent Score ____________ *Grade/Month*
7. Age Equivalent Score . ____________ *Years/Months*
8. Other Score *(Specify)* ____________ ____________
(Kind of Score) *(Score)*

1
2
3
4

---

[1] By "scholastic aptitude or intelligence test" is meant such tests as the following: Cooperative School and College Ability Test (SCAT), California Test of Mental Maturity (CTMM), SRA Primary Mental Abilities Test (PMAT), Differential Aptitude Test (DAT), Otis Quick Scoring Mental Ability Test, Lorge-Thorndike Intelligence Test, Pitner General Ability Test, Terman-McNemar Test of Mental Ability, Menmon-Nelson Test of Mental Ability, Kuhlman-Anderson Intelligence Test, etc.

[2] By "reading test" is meant such test OR subtests as the following: Sequential Tests of Educational Progress: Reading (STEP), Stanford Achievement Test: Reading, Metropolitan Achievement Test: Reading, SRA Achievement Series: Reading, California Reading Test, Nelson-Denny Reading Test, Davis Reading Test, Gates Basic Reading Test, Iowa Silent Reading Test, etc.

8. Please rate this pupil in terms of his degree of cooperation with teachers. *(If pupil is no longer in your school, answer as best you can in terms of when he was last enrolled.)*

1 ☐ Much more cooperative than the average pupil his age.
2 ☐ Somewhat more cooperative than the average pupil his age.
3 ☐ About as cooperative as the average pupil his age.
4 ☐ Somewhat less cooperative than the average pupil his age.
5 ☐ Much less cooperative than the average pupil his age.

9. Please rate this pupil in terms of his degree of effort to do well in his school work. *(If pupil is no longer in your school, answer as best you can in terms of when he was last enrolled.)*

1 ☐ Tries much harder than the average pupil his age.
2 ☐ Tries somewhat harder than the average pupil his age.
3 ☐ Tries about as hard as an average pupil his age.
4 ☐ Tries somewhat less hard than the average pupil his age.
5 ☐ Tries much less hard than the average pupil his age.

10. Since the beginning of school this year, how frequently has this pupil been absent. *(If pupil is no longer in your school, answer as best you can in terms of when he was last enrolled.)*

1 ☐ He has been absent much more often than the average pupil.
2 ☐ He has been absent somewhat more often than the average pupil.
3 ☐ He has been absent as often as the average pupil.
4 ☐ He has been absent somewhat less often than the average pupil.
5 ☐ He has been absent much less often than the average pupil.

11. The following set of questions applies to this pupil's English (or reading or language arts) teacher this year. *(If this pupil has more than one English teacher, please answer in terms of the one with whom he studies reading. If this pupil is not currently taking English, or if he is no longer enrolled in your school, skip to question 12.)*

a. What is the sex of this English teacher?
1 ☐ Male 2 ☐ Female

b. What is the race of this teacher?
1 ☐ White 2 ☐ Negro 3 ☐ Other

c. What is his/her age? ________ years

d. For how many years has he/she been a teacher? ________ years

e. For how many years has he/she been a teacher in this school? ________ years

f. What is the highest academic degree he/she now holds?
1 ☐ Less than a Bachelor's
2 ☐ Bachelor's
3 ☐ Master's
4 ☐ Master's plus 30 hours
5 ☐ Doctor's

12. Information about the person completing this form:

a. Name: ______________________________

b. Position: ______________________________

Remarks

Appendix B

Barriers to Higher Levels of Educational Attainment in an 'Open Class' Society*

Presented at the 1968 Meeting of the American
Sociological Association, Boston, Massachusetts

A. Lewis Rhodes

Persons concerned with Negro-white difference in educational attainment have identified a number of individual and social characteristics associated with the difference.[1] Part of the difference is attributed to social forces which reduce the Negro's chances of attaining the requisite skills to compete effectively in the classroom and subsequently in the job market.[2] Also, some contend that this deprivation and others connected with low status serve to depress levels of motivation and aspiration.[3] This paper is concerned with the educational aspirations of teenage Negroes and whites. Although the relationships between educational plans and individual ability and motivation, income and other indicators of socioeconomic status, and school climates have been established, the participants own reasons for limiting aspirations have received little attention.[4] Are there differences between Negroes and whites in their own perceptions of barriers or alternatives to reaching higher levels of educational attainment? Subjects who don't plan to finish high school are asked why? Teenagers who have already dropped out of high school are asked their reasons. Persons who don't plan to attend college are asked why not? Finally, there remains the group which plans to attend college. To what extent are these plans realistic? Are their parents planning to pay for college training? If so, how do they plan to pay?

This report is related to that for a larger study of educational aspiration and school retention which was first started in 1964.[5] The research is related to the study of inequality in educational opportunity conducted by James S. Coleman and E. Q. Campbell.[6] These studies and others preceding them have shown that there is little difference between whites and Negroes with regard to levels of educational aspiration. Reiss and Rhodes found that Negroes place a higher value on education than whites.[7] Rhodes, in a companion study, found that Negroes are rated as being more highly motivated in school and that the difference is magnified when effects of individual ability and socioeconomic level are controlled.[8] The parent study for the present paper found little difference between Negroes and whites in level of aspiration but higher dropout rates for Negroes.[9] Here then is the anomaly:

Being a Negro in American Society means chances are greater of having:

1) low measured intelligence[10]
2) low levels of educational skill, e.g., reading achievement[11]
3) age grade retardation[12]
4) fewer highly trained, experienced teachers[13]
5) less financial support and security during the school years[14]
6) higher probability of leaving high school before graduation[15]

Yet Negroes consistently place a high value on education and maintain high levels of aspiration. How can this be so? Reiss and Rhodes suggest that although Negroes may fare poorly in a white structured and dominated school system, it provides the major channel of upward mobility for Negroes in American society; i.e., a poor chance of success is better than no chance of success.[16] Negroes want educational opportunity. They are more likely to perceive education is the best way to get ahead because many of them recognize it is their only way to succeed. If these assertions are correct, then it follows that Negroes will give different reasons than whites give for leaving high school or not going to college. Specifically, whites should be more likely to mention dislike of school, desire to get married, etc. as reasons for limiting aspirations or leaving school while Negroes should be more likely to mention lack of money or skill as reasons.

Even though about the same proportion of Negroes and whites plan to attend college, Negroes are much less likely to be enrolled in college. At the time of this study only 9 per cent of the Negroes in the age group 18-24 are enrolled in college while 24 per cent of whites and other non-Negroes in the same age group are enrolled in college.[17] It is beyond the scope of this study to examine all the factors which might account for the unrealized aspirations of Negroes. Instead, attention is directed at family income since lack of financial resources should be a major consideration for Negroes. While it seems obvious that Negro families in the poverty classification cannot provide the necessary support for college attendance, to what extent do youths in these families recognize this as a main reason they will not be able to attend? What about Negro youths from families in the middle income classification? Are their parents taking any steps to insure their college attendance? Are they more or less likely than whites to have a regular savings plan to meet this cost? An examination of parents' plans to pay for college is included as part of this investigation.

Method

The data were obtained by the Current Population Survey (CPS) of October, 1965 conducted by the U.S. Bureau of the Census in three collection phases.[18] School-age children were identified and background information including the most recent school attended was obtained as part of the regular CPS in the first phase. In the second phase, mail-back questionnaires were left by the CPS interviewer: one to be filled in by the mother of teenage children and one to be filled in by each teenage child. Better than 90 per cent response was accomplished for this phase. However, items concerning educational plans were the only "fail-edit" items so that response rates are lower for some of the other items. In the third phase, two questionnaires were sent to the school principal of the most recent high school attended by each child in the sample. The over-all response rate from principals was about 70 per cent, but the rate was less than 50 per cent for nonenrollees. Hence, the present analysis depends primarily upon data obtained from the household rather than the school. Data from the regular CPS, the mail-back questionnaires, and the schools were merged on computer tape and tabulated according to race, sex, college plans, reasons, income, etc. Cases were weighted according to the CPS sampling design and estimates were made of the total population in each of the subgroups created by cross classification on several variables. Since the sample was not designed to accurately reflect the plans and reasons for plans of cases in small subgroups, the results must be interpreted with extreme caution. There are 7,003 cases representing some 13.6 million persons in the age group 14 through 19 who are enrolled in public and private elementary and secondary schools; there are 803 cases representing some 2.0 million dropouts in the same age category.

The subjects were divided into four groups according to enrollment status and educational plans. Persons who plan to leave high school before graduation were asked, "What is the MAIN reason that you don't plan to finish?" Responses are shown in the stub of Table 2. Nonresponse was 16 per cent. Persons who did not finish high school and were not enrolled in school were asked, "Why did you stop going to school?" Nonresponse was 12 per cent. Responses are shown in the stub of Table 3.

Persons who plan to finish high school but who do not plan to attend college were asked, "If you do not plan to go to a regular college, what is the main reason you are not planning to go?" Responses are shown in Table 4. Because of indecision with regard to college plans, the nonresponse rate to this item was very high. The high nonresponse rate for mothers of these youths to essentially the same question suggests that many mothers and respondents are uncertain as to plans or reasons. The nonresponse group probably includes a segment of the college planners who intend to go to a junior college, a business college or other institutions besides four-year colleges.

Finally, mothers of youths planning to attend college who concur with such plans were asked, "How much of the cost will you be able to meet?" and "If you expect to meet all or part of the cost, how do you plan to meet the cost?" Responses to these items are shown on the left of Table 5.

Subjects are categorized as Negro and "white" although the "white" category includes about 1.5 per cent of persons from other races.19 Sex is maintained as a control throughout the analysis since there are differences by sex for both plans and reasons for plans. (See Table B-1.)

TABLE B-1

ENROLLEES EDUCATIONAL PLANS BY RACE AND SEX

ENROLLEES' EDUCATIONAL PLANS	Whites		Negroes	
	Males	Females	Males	Females
	100%*	100%	100%	100%
Go to college	62	51	56	52
Finish high school	33	46	37	45
Not finish high school	5	3	7	5
Weighted N** (in thousands)	6191	5739	859	825
Sample N (total cases)	2927	2723	297	306

*Per cent of all persons reporting college plans

**Weighted N represents estimated total population of subgroup in thousands

The analysis is directed toward the effects of two variables, family income and subject's intelligence test score on race-sex differences in educational plans. Because of the small number of sample cases, it was necessary to dichotomize annual family income into two categories, "income less than $6,000 per year," and "income $6,000 per year or more plus NA." Since income is obtained as part of the regular CPS interview survey with its high response rate, it doesn't make much difference how income NA's are categorized, but the intent of the classification procedure is to keep the low-income group "pure."

Intelligence test scores were obtained for about [illegible] per cent of the cases. (School principals returned forms for about 70 per cent of the cases but only 80 per cent of these forms included I.Q. scores.) Response for dropouts was only about half as great, therefore measured intelligence was not included in the analysis of the dropout data. Again, because of the small number of cases, it was necessary to dichotomize I.Q. scores as follows: "Top four stanines" and "Bottom five stanines plus NA." The top four stanines include subjects with I.Q. scores of 105 or more. This cut point seems to be near the minimum level of ability for attending college. It seemed desirable to separate out the cases which apparently have sufficient ability to benefit from the college experience. The subjects with no information on I.Q. score may be more likely to come from the low intelligence group since they are more likely to be age-grade retarded.

Because of the small sampling fraction (approximately .0005) the standard errors of the percentages in the tables are quite large.[20] Therefore, it seems advisable to ignore differences of less than five per cent between major race-sex subgroups and differences of less than ten per cent for subgroups defined by three variables.

The results are arranged according to increasing levels of educational aspiration. Race-sex differences in reasons are noted in the following discussion. Again, it is necessary to caution the reader that the partialing of cases into ever smaller subgroups really goes beyond the intent of the original sampling design so that confidence in the findings primarily depends on the extent to which such findings are consistent with results from other studies.

Results

Reasons enrollees plan to leave high school before graduation. Perhaps it is unnecessary to note that there is not much difference by race or sex in intent to dropout of school. (See Table B-2.) However, signs of the relationships are in the anticipated direction: males and Negroes are more likely to expect to not finish high school. Also, there are differences by race and sex in reasons for low aspiration. Whites are more likely to indicate dislike of school as a reason. White males are more likely to give this reason than white

TABLE B-2

PER CENT OF ENROLLEES WHO DO NOT EXPECT TO FINISH HIGH SCHOOL BY REASONS FOR EXPECTATION, RACE, SEX, INCOME, AND I.Q.

REASONS NOT PLAN TO FINISH HIGH SCHOOL	Total	Income				Total	Income			
		< $6000		$6000+&NA			< $6000		$6000+&NA	
		Sub-Total	High* IQ	Sub-Total	High IQ		Sub-Total	High	Sub-Total	High IQ
RACE-SEX SUBGROUP:	WHITE MALES					NEGRO MALES				
	100%**	100%	100%	100%	100%	100%	100%	100%	100%	100%
Not good at school work	21	21	0	12	0	16	17	0	13	0
Want to get married	0	0	0	0	0	0	0	0	0	0
Want to get a job	12	12	0	11	0	39	20	0	87	0
Want to learn a trade	12	7	0	29	0	12	17	0	0	0
Family not able to pay	9	12	0	0	0	12	16	0	0	0
Work to help family	7	9	0	0	0	8	11	0	0	0
Don't like school	36	37	100	32	0	4	6	0	0	0
Other	3	2	0	6	100	9	13	0	0	0
No answer(% of all cases)	20	14	0	36	73	9	12	0	0	0
Weighted N***	153	106	7	47	7	44	33	0	11	0
RACE-SEX SUBGROUP:	WHITE FEMALES					NEGRO FEMALES				
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Not good at school work	15	15	0	14	0	21	21	0	0	0
Want to get married	10	13	24	0	0	8	8	0	0	0
Want to get a job	20	12	0	44	51	7	7	0	0	0
Want to learn a trade	2	2	0	0	0	0	0	0	0	0
Family not able to pay	8	11	25	0	0	38	38	0	0	0
Work to help family	10	11	0	7	0	14	14	0	0	0
Don't like school	18	19	0	14	49	6	6	0	0	0
Other	17	16	51	21	0	6	6	0	0	0
No answer(% of all cases)	16	6	0	37	34	8	8	0	0	0
Weighted N***	118	81	7	37	5	27	27	0	0	0

*High I.Q. means score in top 4 stanines.

**Per cent giving each reason is per cent of all subjects in subgroup who gave a reason.

***Weighted represents estimated total of population for subgroup in thousands. Any difference between sum of subtotals and grand totals for race-sex groups is due to rounding of weights.

females. Negro males are most likely to indicate desire to get a job as the main reason; Negro females are most likely to mention financial reasons including need to help family. A few girls mention marriage as a reason. White males and Negro females are more likely to mention difficulty with school work as reason for wanting to leave school. Persons from low income families, particularly Negroes are more likely to mention financial reasons or difficulty with school work. White students from high income families more often indicate dislike of school. There are no bright Negroes who indicate they intend to drop out of school. Bright whites mention dislike of school or desire to take a job.

Dropouts' reasons they left school. It seems worthwhile to compare enrollees' and dropouts' reasons for leaving school to see if reasons given before the fact match reasons given after the fact. Although the race differences with respect to financial need and motivation hold for male dropouts as well as for male enrollees, there are differences in the two sets of reasons. (See Table B-3.) Marriage is more often selected as a main reason by female dropouts. Lack of ability and dislike of school, per se, are relatively less important in the dropout sample, while alternatives to schooling such as getting a job (in the case of males) and getting married (in the case of females) are relatively more important, particularly for Negro dropouts.

Desire to get a job was the reason most frequently indicated by white males from low income families and by Negro males. Curiously enough, the Negroes from families in the high income category had a higher percentage giving desire for a job than Negroes in the low income category. Females in both the high and low income categories most frequently mention marriage for a reason, except for high-income Negro females. White females in the high income category are also likely to check dislike of school as a reason.

Reasons enrollees do not expect to go to college. There is no race difference in per cent indicating dislike of school or lack of ability as reasons for not attending college. (See Table B-4.) Negro males are more likely than white males to check desire to take a job as reason for not going on to college. Negro females are more likely to mention desire to learn a trade. Although data are insufficient to be sure of what is happening, it may be that many of the subjects in this subgroup plan to take some sort of special training such as that necessary for becoming a beautician or practical nurse. In view of the exceptionally large nonresponse rate one would not want to make much over these differences. Of the persons who responded, Negroes seem to place greater attraction on alternatives to going to college. If these persons are representative of the missing cases, then these responses could be symptomatic of a more general phenomenon of fitting ambition to probable opportunities.

Do parents plan to pay for college? If so, how do they plan to pay? There remains the majority of students in the sample who plan

TABLE B-3
PER CENT OF DROPOUTS BY REASONS FOR DROPPING OUT OF SCHOOL, RACE, SEX, AND INCOME

REASONS WHY SUBJECT DROPPED OUT OF SCHOOL		Income			Income	
	Total	< $6000	$6000+	Total	< $6000	$6000+
RACE-SEX SUBGROUP		WHITE MALES			NEGRO MALES	
	100%*	100%	100%	100%	100%	100%
Not good at school work	18	16	25	11	12	0
Wanted to get married	4	5	2	2	2	0
Wanted to get a job	21	24	15	34	33	42
Wanted to learn a trade	6	5	8	4	3	29
Family not able to pay	5	6	2	8	9	0
Work to help family	12	11	13	23	22	29
Don't like school	19	20	18	10	11	0
Sickness in family	4	5	0	0	0	0
Other reason	11	9	16	8	8	0
No answer (% all cases)	12	10	19	20	19	29
Weighted N**	800	573	227	144	135	9
RACE-SEX SUBGROUP		WHITE FEMALES			NEGRO FEMALES	
	100%	100%	100%	100%	100%	100%
Not good at school work	6	6	7	5	6	0
Wanted to get married	38	39	37	32	34	19
Wanted to get a job	8	9	7	13	11	25
Wanted to learn a trade	3	2	6	2	3	0
Family not able to pay	6	7	1	5	1	19
Work to help family	7	7	5	4	5	0
Don't like school	10	8	16	3	4	0
Sickness in family	6	6	6	4	5	0
Other reason	16	16	14	32	31	37
No answer (% of all cases	9	5	25	18	16	25
Weighted N**	847	632	215	225	179	46

*Per cent giving each reason is per cent of all persons in subgroup who gave a reason

**Weighted N represents estimated total of population for subgroup in thousands. Any difference between sum of subtotals and grand totals for race-sex groups is due to rounding of weights.

TABLE B-4

PER CENT OF ENROLLEES WHO DO NOT EXPECT TO GO TO COLLEGE BY REASONS FOR EXPECTATION, RACE, SEX, INCOME, AND I.Q.

REASONS NOT PLAN TO GO TO COLLEGE	Total	Income				Total	Income			
		< $6000		$6000+&NA			< $6000		$6000+&NA	
		Sub-Total	High* IQ	Sub-Total	High IQ		Sub-Total	High IQ	Sub-Total	High IQ
RACE-SEX SUBGROUPS		WHITE MALES					NEGRO MALES			
	100%**	100%	100%	100%	100%	100%	100%	100%	100%	100%
Not good at school work	18	19	7	18	12	18	15	0	28	0
Want to get married	2	*	3	3	0	0	0	0	0	0
Want to get a job	12	15	10	9	6	29	30	0	0	0
Want to learn a trade	28	24	18	32	30	26	21	0	50	0
Family not able to pay	11	15	8	7	9	15	13	100	22	0
Work to help family	2	3	5	0	0	3	3	0	0	0
Don't like school	15	12	16	18	27	12	12	0	0	0
Other	12	10	33	13	15	5	5	0	0	0
No answer(of all cases)	53	50	52	56	69	67	67	57	70	0
Weighted N***	2245	1041	132	1204	325	326	287	3	39	0
RACE-SEX SUBGROUP		WHITE FEMALES					NEGRO FEMALES			
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Not good at school work	9	8	2	10	3	12	10	0	25	0
Want to get married	8	9	7	7	9	2	1	0	14	0
Want to get a job	18	16	17	20	17	18	16	80	27	0
Want to learn a trade	19	18	20	20	17	27	29	0	10	0
Family not able to pay	15	22	35	9	8	12	14	0	0	0
Work to help family	1	2	0	0	0	2	2	0	0	0
Don't like school	18	17	11	19	20	18	18	0	0	0
Other	12	8	8	15	21	10	10	20	12	0
No answer(of all cases)	40	38	38	42	47	62	60	35	75	0
Weighted N***	2676	1228	242	1448	441	359	308	25	52	0

*High I.Q. means score in top 4 stanines.

**Per cent giving each reason is per cent of all subjects in subgroup who gave a reason.

***Weighted N represents estimated total of population in thousands in subgroup. The difference between sum of subtotals and grand totals for race-sex groups is due to rounding of weights.

to attend college. What are their chances of attending? Or, to be more specific, what steps, if any, do their parents plan to take in order to pay for college? The following analysis is confined to those cases where both the child and parent agree on college plans. About 90 per cent of the whites who plan to go to college have mothers (or guardians) who also expect that they will attend college. In the Negro male subgroup planning college only 75 per cent of the mothers expect that they will go to college; 81 per cent of the Negro females have mothers who share their college expectations. Hence, Negro mothers are more pessimistic than their children about chances of attending college.

Negro females are twice as likely as white females to have mothers who indicate that they will not be able to pay any of the cost of sending their daughters to college; Negro males are three times as likely as white males to have mothers who indicate they can not pay. (See Table B-5.) Furthermore, parents of white students, particularly boys, plan to pay a larger fraction of college expenses than parents of Negro students. In regard to the method of payment, Negro parents who plan to pay less than half of the cost are also less likely to have a plan for raising the money than white parents in the same category. On the other hand, parents of Negro boys in the high income categories are more likely to plan to pay more than half of their son's college expense and they are more likely to already have a regular savings plan for doing so than whites in the same category. A similar tabulation by occupation rather than income (not shown) reveals that it is white-collar Negro parents who are particularly likely to already have regular savings plans to pay for college. Another tabulation which includes both I.Q. and income (not shown) shows that low-income families of bright Negro students expect to pay less than half of the cost of their child's education, that they have no current means of saving, and that many have no plans at all on how to meet the cost. It is apparent that unless aid from outside the family is forthcoming, there is little chance that these bright Negro children will be able to attend. Conversely, there are many white children and some Negro children in the low-I.Q. subgroup (bottom 5 stanines), whose parents plan to pay more than half of their college expenses and who have a regular savings plan.

The foregoing analyses have pushed the data further than the sampling design really allows, but certain patterns seem to be repeated at each level of aspiration. Negroes are less likely to dislike school; they are more likely to mention financial need, and Negro families with money (or in the white-collar occupational level) are more likely to have started a regular savings plan to pay for college.

Discussion

Negro teenagers are involved in an educational system and a larger social system which operates to systematically exclude them

TABLE B-5

PER CENT OF PARENTS WHO PLAN TO PAY MORE THAN HALF, LESS THAN HALF OR NONE OF CHILD'S COLLEGE EXPENSE AND METHOD OF PAYMENT BY RACE, SEX AND INCOME

PARENT'S PLANS ON HOW TO PAY FOR COLLEGE	Income in Thousands of Dollars					Income in Thousands of Dollars				
	Total	< 4	4-5	6-9	10+	Total	< 4	4-5	6-9	10+
RACE-SEX SUBGROUP	WHITE MALES					NEGRO MALES				
	100%*	100%	100%	100%	100%	100%	100%	100%	100%	100%
Will pay more than half	66	44	55	64	81	50	34	51	66	91
By regular saving now	13	8	8	12	17	12	6	6	5	57
By other method(s)	48	34	43	47	60	36	24	45	61	34
No plan	5	2	5	5	4	4	0	0	0	0
Will pay less than half	34	56	45	36	19	50	66	49	34	9
By regular saving now	2	4	3	2	2	0	0	0	0	0
By other method	27	41	37	27	15	32	36	39	29	9
No plan	5	11	6	7	2	18	30	10	5	0
Per cent all answers not pay	6	19	7	4	2	20	23	27	5	0
Per cent wtd. N; no ans.	6	8	9	6	4	12	12	14	16	0
Weighted N**	2928	369	543	1120	897	282	143	76	39	24
RACE-SEX SUBGROUP	WHITE FEMALES					NEGRO FEMALES				
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Will pay more than half	71	44	52	68	86	49	38	51	61	79
By regular savings	13	7	7	11	20	11	2	0	11	50
By other method(s)	52	32	38	53	61	34	32	51	38	29
No plan	5	5	7	4	5	4	4	0	12	0
Will pay less than half	29	56	48	32	14	51	62	49	39	21
By regular savings	2	1	2	2	1	4	5	0	11	0
By other method(s)	23	44	39	26	12	30	31	43	16	21
No plan	4	11	7	4	1	17	25	6	12	0
Per cent all answers not pay	5	23	6	6	[illegible]	11	17	6	0	0
Per cent wtd. N; no ans.	6	10	9	6	3	13	14	18	7	0
Weighted N**	2235	174	395	851	815	304	177	67	30	30

*Per cent of all parents answering they plan to pay more or less than half.

**Weighted N represents estimated total population of subgroup in thousands.

B-11

from higher levels of educational attainment by furnishing them with inadequate means to compete in the educational arena for academic achievement, academic rewards and scholarships. The system does this by failing to furnish many of them with the necessary intellectual stimulation both during the preschool years and during the educational process itself.[21] As a result, Negroes have lower average measured intelligence than whites.[22] They have lower levels of reading skill; they have a higher rate of age-grade retardation.[23] Their parents have fewer resources to support them through the "free" public education of the secondary schools and on through college. Because of these factors and others, they have less chance of meeting college entrance requirements and they are less likely to have what it takes to remain in college, both in terms of finances and skills. Yet they continue to maintain high levels of educational aspiration in the face of all these obstacles. Even the Negroes who drop out of high school are more likely to plan to return to school than white dropouts.[24] How can this be so?

First, one must remind one's self that participants in a social system may be unaware of the nature of that system in which they must operate. Hence, some Negroes may be unaware of the obstacles they face in wanting to achieve a quality education or higher levels of educational attainment. This may be partially evident in that parents of Negro children are less optimistic about their children's chances of going to college than the children themselves. In addition, there are many children, both Negro and white, in the low-ability group who plan to go to college and whose parents plan for them to go to college. Also, it is possible that responses relative to any anticipated event may include an element of phantasy which will diminish as the time of the anticipated event approaches. Indeed, the per cent of respondents planning college varies inversely with age for both whites and Negroes. Still another explanation for high levels of aspiration evidenced by Negroes could lie in a general response set of passive acquiescence in a questionnaire or interview situation.[25] If "going to college" is viewed as the "conforming" response, the subject may check it as a means of avoiding trouble.[26] The same thing could be operating with respect to reasons for plans; i.e., the respondent checks the acceptable or conventional reason rather than the true reason. While any of these explanations merit further investigation, there is another explanation which should be considered.

The Negro orientation towards education as a success means is evident both in responses to direct questions about plans and in the reasons they give for limiting their educational ambitions. Although evidence is lacking for the total Negro community, one suspects that high valuation of education is part of the Negro subculture. This could be a result of Negro perceptions of how one succeeds in American society. Even though one or two persons in any given local Negro community may become a success in the larger society by means of some special talent in athletics, etc., the most visible models for success in the Negro community are the college educated physicians, lawyers, and teachers. For many Negroes, education represents the only ticket out of the ghetto. When most channels of mobility are blocked, the ones that remain may assume added importance. The data that have been presented here are inadequate to support these assertions. However, there is tangential support for this explanation in that Negroes are less likely to mention dislike of school as a reason for quitting and that Negro families who have made it into the white-collar occupations or the higher income category are more likely to have a regular savings plan to pay for their child's college attendance than whites in these same occupational or income categories. The foregoing discussion has ignored the many limitations of the design and execution of this study. Particular note should be made of the inability to detect the extent to which the reasons provided on the check list represent the "true" reasons that persons limit their aspirations or leave school. For example, the broad, relatively conventional responses on the check list do not include the less socially acceptable reasons for dropping out of school such as being expelled for ungovernable behavior or for delinquency on the part of boys or for pregnancy (premarital or otherwise) in the case of girls. Also, the subjects themselves may be inarticulate or even unaware of the "true" reasons that they plan to drop out of the educational system.

Nevertheless, the weight of the evidence presented in this paper supports the notion that Negroes want to get as much education as possible. The implication for public policy seems clear enough. While more than financial aid is needed to advance rates of school retention at the secondary school level and rates of college attendance for both Negroes and whites, financial support would enable Negroes to remain in school longer. Negroes themselves identify lack of money as a major reason for limiting ambition. Many Negroes have the will to reach higher levels of educational attainment. What they are looking for is a way.

FOOTNOTES

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1. The literature on educational attainment is so extensive that it is impossible to cite all the relevant studies. A few references may be illustrative of the work that has been done: S. M. Miller, Betty L. Saleem, and B. Herrington, *School Dropouts: A Comentary and Annotated Bibliography* (Syracuse: Syracuse University Youth Development Center, 1964); R. A. Dentler and M. E. Warshauser, *Big City Dropouts and Illiterates* (New York: Center for Urban Education, 1965); Beverly Duncan *Family Factors and School Dropouts: 1920-1960* (Ann Arbor: The University of Michigan, 1965); John K. Folger and Charles B. Nam, *Education of the American Population* (Washington, D.C.: U.S.G.P.O., 1967); and C. B. Nam, A. Lewis Rhodes, and R. E. Herriott, "School Retention by Race, Religion, and Socioeconomic Status," *Journal of Human Resources*, 3 (Spring, 1968) 171-190.

2. See A. Harry Passow (ed.) *Education in Depressed Areas* (New York: Columbia Univ., 1963) and Peter M. Blau and Otis Dudley Duncan, *The American Occupational Structure* (New York: John Wiley & Sons, Inc., 1967) 207-227; 354-360; 401-418.

3. See Part II "Psychological Aspects of Education in Depressed Areas," in Passow, *Education in Depressed Areas op. cit*. 101-179.

4. Nam and Folger, op. cit. 57-66.

5. Charles B. Nam, A. Lewis Rhodes, and Robert E. Herriott, *Inequalities in Educational Opportunities* (Tallahassee: Florida State Univ., 1966).

6. James S. Coleman and Ernest Q. Campbell, *Equality of Educational Opportunity* (Washington, D.C.: U.S.G.P.O., 1966)

7. Albert J. Reiss, Jr. and A. Lewis Rhodes, "Are Educational Norms and Goals of Conforming Truant and Delinquent Adolescents Influenced by Group Position in American Society?" *Journal of Negro Education* 28 (Summer, 1959) 252-267.

8. A. Lewis Rhodes and A. J. Reiss, "Apathy, Truancy, and Delinquency as Adaptation to School Failure," Mimeograph, 1968.

9. Nam, Rhodes and Herriott, *Inequalities in Educational Opportunities*, *op*. *cit*. D-11, and "School Retention...." *op*. *cit*.

10. Kenneth B. Clark, "Educational Stimulation of Racially Disadvantaged Children," in Passow, _op_. _cit_. 149-153; Coleman and Campbell _op_. _cit_., 274-275. In the present sample of enrollees only 16 per cent of the Negroes have I.Q. scores in the top four stanines; while 53 per cent of the whites have I.Q. scores in the top four stanines.

11. Coleman and Campbell, _op_. _cit_. 274. Rhodes, in an unpublished paper found that Negro mean grade level of reading achievement lags white reading achievement by one year even when means are adjusted for the effects of eleven variables such as parent education, occupation and influence, pupil motivation, I.Q., attitudes, etc.

12. Folger and Nam, _op_. _cit_. 52-53; In the present study, 27 per cent of the Negroes and 10 per cent of the whites were two years older than the age mode for the grade in which they were enrolled.

13. Passow, _op_. _cit_. Part IV; Robert E. Herriott and Nancy Hoyt St. John, _Social Class and the Urban School_ (New York: John Wiley and Sons, Inc., 1966) 57; Coleman and Campbell _op_. _cit_. 130-140.

14. Folger and Nam, _op_. _cit_. 39, 55; In the present study 17 per cent of the Negro and 62 per cent of the white enrollees are in families with incomes of $6,000 or more per year.

15. Nam, Rhodes, and Herriott (1968), _op_. _cit_.

16. Reiss and Rhodes, "Educational Norms and Goals...." _op_. _cit_. 257-259.

17. Per cents calculated by using data for same sample published by the U.S. Bureau of the Census, "School Enrollment: October, 1965" _Population Characteristics_, _Current Population Reports_, Series P-20, No. 162 (March 24, 1967) 9-10.

18. _Ibid_; 1-12.

19. Orientals make up the majority of the "other-race" category. Orientals are higher than whites in per cent planning to go to college and slightly higher than whites in per cent with I.Q. in top four stanines.

20. The following table of standard errors will give an indication of the magnitude of the standard errors rather than the precise standard error for any specific item or subgroup:

STANDARD ERROR OF ESTIMATED PERCENTAGE
OF PERSONS ENROLLED IN SCHOOL OCT. 1965

(68 Chances out of 100)

Estimated Percentage	Base of Estimated Percentage (Thousands)	
	500	1,000
2 or 98	.8	.5
5 or 95	1.2	.8
10 or 90	1.6	1.1
25 or 75	2.3	1.7
50	2.7	1.9

Source: U.S.B.C., "School Enrollment: October 1965" op. cit. p. 5.

21. Kenneth B. Clark, "Educational Stimulation...." op. cit.

22. See footnote 10.

23. See footnotes 11 & 12.

24. In the case of white dropouts, 30 per cent of the boys and 27 per cent of the girls indicate they plan to return to school; 8 per cent of the boys and 5 per cent of the girls intend to return within a year. In the case of Negro dropouts, 48 per cent of the boys and 46 per cent of the girls plan to return; 12 per cent of the boys and 10 per cent of the girls plan to return within a year.

25. Gerhard E. Lenski and John C. Leggett, "Caste, Class and Deference in the Research Interview," American Journal of Sociology 65: 463-467.

26. Walter B. Miller finds concern over "trouble" as a dominant feature of lower class culture; "trouble" represents a situation which results in unwelcome or complicating involvement with official authorities as agencies of middle class society. "Lower Class Culture as a Generating Milieu of Gang Delinquency" Journal of Social Issues, 14: 8.

APPENDIX C

VALUATION OF ALTERNATIVE SUCCESS MEANS BY RACE, SEX, ABILITY AND SOCIOECONOMIC STATUS

KENT G. MOMMSEN

Research has consistently shown measured intelligence, race, sex, socioeconomic status, and parental influence to be related to the college plans of youth. (Kahl, 1963; Sewell, Haller, and Strauss, 1957; Pavalko and Bishop, 1966; Bennett and Gist, 1964) Most of the previous research in this area has been done on samples of high school students and has been concerned simply with whether or not one has plans to go to college. Little attention has been given to how adolescents select among alternative institutionalized means for attaining success goals. This paper is concerned with relationships between selected characteristics of individuals and families and adolescents' choice of success means. Are there differences between Negroes and whites in their perceptions of which means are most effective in "getting ahead in life?" What is the relationship of sex, socioeconomic status, parental opinion, measured intelligence, age-grade retardation, and region to one's choice of success means?

This report is related to a larger study of educational aspirations which was first started in 1964. (Nam, Rhodes and Herriott, 1966) Reiss and Rhodes have found that Negroes place a higher value on education than whites. (1959) They have also suggested that although Negroes may fare poorly in a white structured and dominated school system, it provides the major channel of upward mobility for Black Americans. Clearly, it has been demonstrated that Negroes apparently want educational opportunity. They are more likely to perceive education is the best way to get ahead because many of them recognize it is their only way to succeed. (See Appendix B) It is the purpose of this paper to test this hypothesis. Attention is directed therefore toward alternative means of upward mobility for Negroes. It is assumed that alternatives to education do exist.

Every society has certain institutionalized ways for reaching the culturally approved goals of a society. The major success goals in American society all are means to other goals, e.g., making money, getting a good education and choosing a good job all become means to other ends. Yet it is believed that success is more likely to eventuate from some of these means-ends chains than from others. A representative national sample of teenagers enrolled in school between the ages of fourteen and nineteen (N=6,994) were asked to choose, in their opinion, which of the following is the best way for young people to get ahead in life?

(1) Work hard and save money.
(2) Have a nice personality and be likeable.

(3) Get a college education.
(4) Be a person with a special talent such as a good athlete, actor, or singer.
(5) There is no way to get ahead in life.
(6) Other ______________________________
(Specify)

It was hypothesized that one's classification in relation to the several variables under consideration would enhance the prediction of response on the dependent variable, institutionalized means for attaining success.

In Merton's well-known paper on "Social Structure and Anomie" it was assumed that the motivation to succeed is shared by all classes. (Merton, 1957) Although it was deemed necessary to make a similar assumption in this investigation the challenge by Hyman in regard to this assumption cannot be ignored. (Hyman, 1953) Hyman argues that the lower class does not set its sights quite so high as Merton had assumed and presumably then, its more limited means are quite consistent with its more modest ambitions. Certain beliefs and values held by lower class people help to account for their lack of upward mobility. The components of this value system, according to Hyman, involve less emphasis upon the traditional success goals, increased awareness of the lack of opportunity to achieve success and less achievement of goals which in turn would be instrumental for success. If, however, one accepts the notion that Negroes want to get as much education as possible, it becomes logically necessary to assume the presence of significant success goals in even the lower socioeconomic levels of the Black community. It is therefore assumed, perhaps somewhat tenuously, that mobility aspirations, the desire to get ahead, to be successful, to achieve high levels of consumption pervade the entire class structure.

Porter has made the most recent attack on this assumption. (Porter, 1968) He casts considerable doubt on the ubiquity of mobility values in American society by noting that evaluation studies of manpower training schemes designed to upgrade workers' skills indicate that opportunity alone is not enough. It is suggested that the reference-group concept provides the most interesting possibilities for recasting theory. It has scarcely been used at all to help explain low mobility aspirations. Thus subcultural variation in both means and goals may exist to a greater degree than heretofore has been assumed. An attempt is made in the present study to examine subcultural variation in ranking importance of means for attaining success in American society.

The assumption that all persons seek success as generally defined in the whole society is rather tenuous. Ambiguity and differing perceptions of what "getting ahead in life" means is the problem. It has been pointed out, for example, that lower classes would give a greater priority to security of income rather than maximizing chances of high income. To what extent, then, does the question of "getting ahead in life" become irrelevant? Success is the goal of the most general character for mobility but its specific meaning for individuals can vary widely, and it probably means rather different things to people from different socioeconomic backgrounds. Our interest is centered on value placed on one of several success means rather than on the relationship between means and ends. That is, regardless of what goal the informant has in mind, does he choose education or some other means as the best way of achieving his goal?

Turner suggests that the discrepancy between ceremonial and working aspects of values applies more strongly to means than it does to goals. (1964) Among the mobiles who employ the educational channel to success one should find less willingness to compromise such putative middle class values as integrity, self-reliance, deferred gratification and a more rigid dependence upon prescribed and formalized routes to success, as represented by especial reliance on education. In his The Social Context of Ambition Ralph Turner has stated: "A key task in the development of theory and research regarding mobility is the delineation of alternate channels of mobility, alternate emphases in ambition . . ." (1964) It is to this task that we now turn.

METHOD

The data for the present study were collected by the Current Population Survey (CPS) of October, 1965, conducted by the U. S. Bureau of the Census in three collection phases. School-age children were identified and background information including the most recent school attended was obtained as part of the regular CPS in the first phase. In the second phase, mail-back questionnaires were left by the CPS interviewer: one to be filled in by the mother of teenage children and one to be filled in by each teenage child. Better than 90 percent response was accomplished for this phase. In a third phase, two questionnaires were sent to the school principal of the most recent high school attended by each child in the sample. The present analysis depends primarily upon data obtained from the household rather than the school, since the response rate from principals was about 70 percent. Data from the regular CPS, the mail-back questionnaires, and the schools were merged on computer tape and tabulated according to race, sex, socioeconomic status, intelligence, etc. Cases were weighted according to the CPS sampling design and estimates were made of the total population in each of the subgroups created by cross classification on several variables. There are 6,994 cases representing some 13.5 million persons in the age group 14 through 19 who are enrolled in public and private elementary and secondary schools. Percentages reported are computed on the basis of the weighted frequencies described above, rather than original sample cases.

The subjects were divided into four subgroups according to race and sex in order to compare responses on the dependent variable for these main control variables. Weighted sample sizes in thousands are: white males, 6150; white females, 5675; Negro males, 837; and Negro females, 821.

Nonresponse on the success means item for the entire sample was 4.4 percent, ranging from a high of 6.5% for Negro females to a low of 3.7% for white females.

Subjects are categorized as Negro and "white" even though the latter category includes about one percent of persons from other races. Orientals who are similar to whites in educational aspiration and achievement make up the majority of the "other-race" category. Sex and race are maintained as a control throughout the analysis since there are differences for both sex and race in regard to choice of success means. (See Table C-2)

The analysis is directed toward the effects of socioeconomic status, mother's choice of success means and I.Q. on race sex differences in choice of success means. The effect of age-grade retardation and region of residence were also examined independently.

A measure of socioeconomic status which combined both occupation and income was used. Because of the small number of sample cases, it was necessary to dichotomize annual family income into two categories: "income less than $6,000 per year or more plus NA." Since income is obtained as part of the regular CPS interview survey with its high response rate, it doesn't make much difference how income NA's are categorized, but the intent of the classification procedure is to keep the low-income group "pure." The occupational classification scheme used by the census was dichotomized into white-collar and non-white-collar. The latter category is called "blue collar," for convenience, since this is the largest group within the category. Farm occupations, unemployed groups and cases with no information are also included in this classification. Occupation of household head and family income were cross-classified to form the following categories:

(1) White collar workers with annual family income of $6,000 per year or more plus NA.
(2) White collar workers with annual family income of less than $6,000 per year.
(3) Blue collar workers with annual family income of $6,000 per year or more plus NA.
(4) Blue collar workers with less than $6,000 per year.

Results are presented in Table C-3.

Intelligence test scores were obtained for about 56 percent of the cases. School principals returned forms for about 70 percent of the cases but only 80 percent of these forms(or 56 percent of all cases) included I.Q. scores. Again, because of the small number of cases, it was necessary to dichotomize I.Q. scores as follows: "Top four stanines" (High I.Q.) and "Bottom five stanines" (Low I.Q.). The top four stanines include subjects with I.Q. scores of 105 or more. This cut point was chosen during the "college aspirations" phase of the larger study because it seems to be near the minimum level of ability for successfully attending college.

Because of the small sampling fraction (approximately .0005) the standard errors of the percentages in the table are quite large. Therefore, as a "rule of thumb," it seems advisable to ignore differences of less than five percent between major race-sex subgroups and differences of less than ten percent for subgroups defined by three variables. Partialling of cases into ever smaller subgroups really goes beyond the intent of the original sampling design, so confidence in findings in such cases should be adjusted accordingly.

In the second phase of data collection, it will be recalled, the mother of the teenage child and the child were asked to fill out mail-back questionnaires. The possibility of contamination should be considered high in the case of Table C-5, since mother and child were filling out questionnaires simultaneously. Nevertheless, given the lack of correspondence between detailed responses to the aspiration question by mother and child, contamination is assumed to be minimal.

Age-grade retardation, it should be made clear, is quite distinct from "retardation," as defined by psychological measurement based on standardized achievement tests. Enrollees were considered to be age-grade retarded if they were two years in age above the age mode for the grade in which they were enrolled. In other words, two years behind his "age-normal" graduating class.

The seven independent variables described above are considered by the authors to be antecedent to the dependent variable. The data will be analyzed by first examining the relationship between the two main independent variables (race and sex) and the dependent variable. Next, using race and sex as controls, the relationship between socioeconomic status and choice of success means is considered. Similarly, the relationships between subject's choice and I.Q. and between mother's choice of success means, and subjects choice are each examined. Finally, the relationships of age-grade retardation and of region to subject's choice of success means are presented. The technique of "elaboration by partials" used in this study is in the tradition of social survey research explained elsewhere by Hyman, (1955) and by Lazarsfeld and Rosenberg, (1955).

RESULTS

From Tables C-1 and C-2 it can be seen that the response "get a college education" is by far the most common channel of upward mobility chosen by all subgroups. There is a significant difference by race. Negroes apparently view education as the single best means for getting ahead in life in greater proportion than whites. Negroes chose "college" at a rate of 63.2 percent, whereas only 50.3 percent of the whites in the sample chose this alternative. "Personality", on the other hand, was

TABLE C-1

ENROLLEES CHOICE OF SUCCESS MEANS BY RACE

ENROLLEES' CHOICE OF SUCCESS MEANS	TOTAL	Whites	Negroes
Work hard and save money	18.7	18.9	17.4
Have a nice personality and be likeable	14.1	14.2	13.6
Get a college education	56.7	56.0	61.4
Be a person with special talent such as a good athlete, actor, or singer	3.3	3.2	3.6
There is no way to get ahead in life	0.5	0.6	0.2
Other __________ (Specify)	6.7	7.1	3.8
TOTAL	100.0	100.0	100.0
Weighted N* (in thousands)	12892	11332	1559

*Weighted N represents estimated total population of subgroup in thousands

**Nonresponse items not included in this table (N=5919)

TABLE C-2

ENROLLEES CHOICE OF SUCCESS MEANS BY RACE AND SEX

ENROLLEES' CHOICE OF SUCCESS MEANS	Whites		Negroes	
	Males	Females	Males	Females
Work hard and save money	20	17	17	18
Have a nice personality and be likeable	11	18	12	15
Get a college education	58	54	63	60
Be a person with special talent such as a good athlete, actor, or singer	4	2	5	3
There is no way to get ahead in life	1	1	0	0
Other ____________ (Specify)	6	8	3	4
TOTAL	100*	100	100	100
Weighted N (in thousands)	5867**	5465	791	768

*Percent of all persons (weighted) reporting choice of success means.
**Weighted N represents estimated total population of subgroup in thousands.

about as kikely to be chosen by whites as by Negroes. Negroes apparently then do not perceive their chances of getting ahead by means of their personality in a society dominated by the white power structure as much different than for whites. "Work hard and save money" was the second most popular choice overall. However, neither "work hard" nor the remaining alternative channels of social mobility varied significantly by race. This was found to be true throughout the study. Less than one percent in each subgroup chose "no way to get ahead." Thus, more than 99 percent of all respondents who answered did perceive some "best way for young people to get ahead in life." Interestingly these few responses indicating "no way" came from whites, not Negroes as might have been expected. There are no Negroes who indicate that there is no way to get ahead.

In regard to sex, females are more likely to choose personality than males--17.2 percent to 11.1 percent. (See Table C-2) However, controlling for race, this relationship holds only for whites. Negro females are slightly more likely to choose personality than Negro males but the difference could be due to sampling fluctuation. No other sex differences in choice of means are significant. Males of both races consistently chose "work hard and save money" as the second most popular choice of success means.

Table C-3 presents the relationship between socioeconomic status and success means when race and sex are simultaneously controlled. For whites choice of "college" appears to vary directly with socioeconomic status, though not every percentage difference is significant according to the arbitrary criterion set at the beginning of the analysis

These results are consistent with prior research which has established the relationship between socioeconomic status and college plans. Pavalko and Bishop, for example, examined Canadian high school students and found a direct relationship. (1966) Therefore, it is not too surprising that college is more likely to be chosen as a success means by high status groups. Of interest here is the fact that the relationship does not hold equally as well for Negroes. Specifically, Negro adolescents from blue-collar families with incomes in excess of $6,000 apparently place a higher evaluation on education as a success means than whites. Whereas 78 percent of the Negro males in this socioeconomic category chose college only 58 percent of the white males in the same subgroup chose college. In fact, Negro males in this blue-collar, high-income category are more likely to choose college than Negro males in the white-collar, high-income category. Among children of Negro blue-collar workers, significantly higher percentages also choose "college" than whites in corresponding subgroups.

TABLE C-3

ENROLLEES CHOICE OF SUCCESS MEANS BY SOCIOECONOMIC STATUS, RACE, AND SEX

ENROLLEES' CHOICE OF SUCCESS MEANS	Whites								Negroes							
	Males				Females				Males				Females			
	White Collar		Blue Collar		White Collar		Blue Collar		White Collar		Blue Collar		White Collar		Blue Collar	
	+*	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Work hard and save money	15	19	19	27	13	15	17	23	6	19	11	18	21	40	27	16
Have a nice personality and be likeable	9	8	11	14	13	14	18	23	0	9	4	15	10	8	12	16
Get a college education	64	62	58	50	64	60	52	47	72	68	78	59	62	47	57	60
Be a person with special talent such as a good athlete, actor, or singer	4	5	5	3	2	3	2	1	0	4	1	6	0	0	2	3
There is no way to get ahead in life	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0
Other ______________ (Specify)	8	6	6	5	8	8	10	6	22	0	6	2	7	5	2	5
TOTAL PERCENT	100	100	100	100	100	101	99	101	100	100	100	100	100	100	100	100
Weighted N (in thousands)	1778	437	1905	1748	1571	380	1909	1607	34	30	136	590	38	26	94	610

*Income categories are divided into (+) annual income for family exceeds $6,000 and (-) when annual income is less than $6,000.

C-9

Subjects from blue-collar families with incomes of less than $6,000 tend to choose "work hard" more than those from white-collar families with incomes over $6,000, except in the case of Negro females where the relationship is reversed. One might speculate that lower-class black girls, being disillusioned with the position that their mothers have attained by adhering to this success means have reacted by rejecting this means. On the whold, however, a greater proportion of Negro girls seem to choose this success means (especially white-collar Negro girls) than in the other three race-sex subgroups.

Personality was consistently chosen in greater proportions by children of blue-collar workers below $6,000 in contrast to those of white-collar workers above $6,000 for all race-sex subgroups. No way to get ahead, again, was the least popular choice -- less one percent in each subgroup. "Talent" also was one of the least popular choices, especially with Negroes, which was contrary to expectations. Given publicity concerning Negro athletes and entertainers, it was assumed that Negro youth would value this channel of social mobility, but these data do not support this hypothesis.

An interesting aspect of Table C-3 centers on the choices of Negro, white-collar males from families of $6,000 plus. It was found that 22 percent chose some "other" means of success than the ones listed. The unique interation of these variables to produce such an unusually high percentage deserves further investigation. It would be of interest to know what common elements, if any, are contained in the "specified" answers of this subgroup. Herein could lie the key to the means by which mobile Negroes choose some other means besides education to achieve success.

Table C-4 presents the relationship between measured intelligence and choice of success means when race and sex are controlled. Intelligence was found to be a significant variable in determining whether enrollees would choose "college" or some other alternative as the best means of upward mobility. The high I.Q. enrollees (top 4 stanines) consistently chose "college" in significantly greater proportions than low I.Q. enrollees (bottom 5 stanines) for all race-sex subgroups. It was also found that low I.Q. children are more inclined to choose both "work hard" and "personality" than those with high I.Q. scores for all race-sex subgroups.

For male high I.Q. Negroes 16 percent chose some "other" means not listed. The exact nature of the best means of success for these respondents would be of interest. In general, however, whites chose "other" more often than Negroes. High I.Q.s seem slightly more likely to choose "other" means not listed -- perhaps due to a more complex cognitive structure capable of perceiving more alternatives than those presented. One might speculate on the low response rate to "no way to get ahead." First, the wording of the questionnaire and the nature of its sponsorship, (i.e., U. S. Bureau of the Census), might influence subjects to feel that there must be a single best means to get ahead.

TABLE C-4

ENROLLEES CHOICE OF SUCCESS MEANS BY I.Q., RACE AND SEX

ENROLLEES' CHOICE OF SUCCESS MEANS	Whites				Negroes			
	Males		Females		Males		Females	
	*High I.Q.	Low I.Q.	High I.Q.	Low I.Q.	High I.Q.	Low I.Q.	High I.Q.	Low I.Q.
Work hard and save money	15	25	15	21	10	15	17	18
Have a nice personality and be likeable	9	13	15	20	0	13	16	17
Get a college education	65	50	58	48	70	64	67	59
Be a person with special talent such as a good athlete, actor, or singer	4	7	2	2	3	5	0	1
There is no way to get ahead in life	0	2	0	0	0	0	0	0
Other ____________ (Specify)	7	4	10	9	16	4	0	4
TOTAL	100	101	100	100	99	101	100	99
Weighted N (in thousands)	1921	1697	1870	1579	40	257	52	223

*High I.Q. means score in top 4 stanines; Low I.Q. means bottom 5 stanines. NA's on I.Q. were eliminated.

Thus, the question implies one of the responses is the "correct" answer. In this case choosing "no way" disputes the implication of the question. A person who actually believes that there is "no way" may be too apathetic to go against the slant of the question.

Table C-5 shows that a close relationship exists between mother's choice and the enrollee's choice of success means for all subgroups. This is particularly true when the mother's choice was college. These data indicate that mother's influence on the single best channel for upward mobility is greatest when her choice is college. Comparing race-sex subgroup percentages it also appears that mother's influence is the greatest in the case of Negro males. This finding has been supported by previous studies showing the maternal influence to be great in the matriarchal American Negro family. In general, when controlling for race and sex, mother's choice appears to have a strong influence in all subgroups. It would be interesting to compare the father's influence on the choice of success means. These data were not available.

It is important to notice in Table 7 that even the relatively unpopular choices of success means (i.e., talent, no way, other) received unusually high proportions of enrollee choices when mother's choices were the same.

One interesting anomaly occurs for white females, whose mothers chose "no way" -- 51 percent selected "work hard", while only 16 percent followed the mother's lead. Apparently these girls have rejected their mother's rather pessimistic outlook and adhere to quite a contrary position. Perhaps the mother's choice is a function of experience. If, however, the mother is not transmitting her values on to the child, what is the origin of this choice? Teachers? Father? Siblings? Peers? Further, why does this occur only in the white female subgroup?

In the black female subgroup whose mothers indicated "no way" something else happens. Some 79 percent choose college rather than work hard as did the white females. Caution, however, in interpreting findings is needed since actual cases in subgroups involving three controls tend to be extremely small. Nevertheless, this Negro-white difference for females needs to be examined further with new data.

There was a general tendency for respondents to choose education when the mother selected one of the less popular means such as talent, no way, or other. These data are an interesting supplement to the main report of which this is a part. Even though Negro mothers tend to be pessimistic about their children's chances, apparently the notion that college is the best means for a young person to get ahead seems to be a predominant value which is transmitted by Negro as well as white mothers.

TABLE C-5

ENROLLEES' CHOICE OF SUCCESS MEANS BY MOTHERS' CHOICE OF SUCCESS MEANS, RACE AND SEX

ENROLLEES' CHOICE OF SUCCESS MEANS	MOTHER'S CHOICE OF SUCCESS MEANS											
	WHITE MALES						NEGRO MALES					
	1	2	3	4	5	6	1	2	3	4	5	6
1. Work hard & save	47	21	14	21	20	13	52	12	7	0	...	15
2. Nice personality	11	39	8	2	22	12	6	46	8	20	...	0
3. College education	32	31	70	50	20	44	33	33	79	0	...	65
4. Special talent	3	4	4	27	0	6	5	8	3	80	...	0
5. No way	1	1	0	0	38	2	2	0	0	0	...	0
6. Other ______ (Specify)	5	5	5	0	0	23	2	2	4	0	...	20
TOTAL PERCENT	99	101	101	100	100	100	100	101	101	100	...	100
	WHITE MALES						NEGRO MALES					
	1	2	3	4	5	6	1	2	3	4	5	6
1. Work hard & save	43	10	11	13	51	17	48	20	12	0	0	25
2. Nice personality	16	56	11	10	0	12	9	49	10	0	21	25
3. College education	31	25	69	54	33	42	25	31	72	79	79	50
4. Special talent	3	1	2	23	0	5	10	0	1	22	0	0
5. No way	0	1	1	0	16	0	0	0	0	0	0	0
6. Other ______ (Specify)	8	7	7	0	0	25	7	0	5	0	0	0
TOTAL PERCENT	101	100	101	100	100	101	99	100	100	101	100	100

Tables C-6 and C-7 examined the gross effects of age-grade retardation and region on choice of success means. Retarded subjects (i.e., two years behind grade level for age mode) were found to be more likely than the non-retarded to choose "work hard and save money." The non-retarded enrollees were found to be more likely to choose college -- 57 percent to 48 percent, or some "other" means. These results are consistent with those reported for choice of means and I.Q.

Northerners apparently choose work hard and save money as a success means in greater proportions than either South or West. (See Table C-7) Perhaps this is due to greater opportunities in the industrial areas which are available to non-college graduates. Northerners are also less likely to choose college as the best success means than South or West.

The foregoing analyses have revealed certain patterns in regard to choice of success means for the race-sex subgroups considered. College is by far the most frequent choice of success means. However, at least two other channels of upward mobility should be viewed as important. One is congruent with Protestant Ethic: to "work hard and save money." The other is cultivation of a "likeable" personality. Blacks tend to view education as the single best means in greater proportions than do whites. Socioeconomic status tends to be directly related to choosing college as a success means regardless of race or sex. Low I.Q. enrollees are less likely to choose college and more inclined to choose "work hard" and "personality" than high I.Q. children. Mother's choice is closely related to the child's choice except when a less popular success means is selected by the mother. Age-grade retarded enrollees and Northerners tend to be more likely to choose "work hard" and are less likely to choose college as a means to upward social mobility.

DISCUSSION

Negro teenagers are involved in a social system which systematically operates to exclude them from higher levels of attainment. (See Appendix B) Culturally approved success goals, however, have been internalized. An attempt has been made to examine Negro-white differences in perceptions of alternative channels of upward social mobility.

The Negro orientation towards education as a success means was found to be significantly stronger than that of whites. Evidence appears to indicate that this high valuation of education is part of the Black American subculture. Negro perceptions of how one succeeds in American society appear also to vary in regard to several other alternative channels of social mobility. These data support the notion that education may be the major success means, but rejects the hypothesis that all Negroes perceive education as the only ticket out of the ghetto. Approximately 40 percent of the Negroes in this sample chose some alternative success means other than education. Although the most "visible" models for success in the Negro community tend to be the college-educated physicians,

TABLE C-6

ENROLLEES CHOICE OF SUCCESS MEANS BY AGE-GRADE RETARDATION

ENROLLEES' CHOICE OF SUCCESS MEANS	RETARDED	NOT RETARDED
Work hard & save	28	18
Nice personality	17	14
College education	48	57
Special talent	4	3
No way	1	1
Other__________ (Specify)	2	7
TOTAL	100	100
	1136	12348

TABLE C-7

ENROLLEES CHOICE OF SUCCESS MEANS BY REGION

	NORTH	SOUTH	WEST
Work hard & save	21	18	15
Nice personality	15	15	11
College education	53	59	62
Special talent	3	3	4
No way	1	1	0
Other__________ (Specify)	8	5	7
TOTAL	100	100	100
Weighted N (thousands)	6823	4312	2349

lawyers, and teachers, apparently other channels are also deemed important. In fact, it may be that some of the lesser choices are actually viewed as the most realistic means of upward mobility if this variable could somehow be tapped accurately. Education may simply be the conforming choice in which case there are norms operating for Negroes to perceive this choice as the only means of upward mobility.

It is clear, however, that only a very small minority of Negroes or whites give top priority to noneducational means or hard work, i.e., "geing a person with a special talent" or some "other" means of success. Virtually none of the respondents felt compelled to indicate that there is "no way to get ahead," perhaps an indication of a very basic belief in America as an "open class" society. "To work hard and save money" and the possession of a "nice personality" were found to be valued as alternative channels. Proportionally however, they were far behind education.

In general the data that have been presented agree with prior research on Negro educational aspirations and motivation. Given the high percentages of this subgroup who chose college education, it might be assumed that they would be highly motivated to go on to college if they could acquire the intellectual ability and financial support. High levels of educational motivation among Negroes have been reported by Coleman and Campbell, (1966, p. 278). When asked about whether they wanted to be good students, Coleman found, a higher proportion of Negroes than any other group, (over half), reported that they wanted to be one of the best in the class. In every region a considerably higher proportion of Negroes than of whites gave this response. Further, Negroes reported more studying outside school than any other ethnic group (except Oriental Americans) and a sharply lower frequency of staying away from school because they "didn't want to come" than do whites in every region of the country.

Among both Negroes and whites, Coleman and Campbell found that more in the West plan to attend college than in other regions. (1966, p. 279) Enrollees from the West in the present study were also found to choose "college" as a success means more often than those from other regions.

Findings reported here, however, parallel Coleman's study even more closely in the area of Negro aspirations to attend college as a major means of social mobility:

> The most striking differences are the especially high level of motivation, interest, and aspirations reported by Negro students. These data are difficult to reconcile with the facts of Negroes' lower rates of completion of school, and lower college-going rate. They appear to show at least one thing: Negroes are especially strongly oriented toward the school as a path for mobility. This finding is consistent with other research that has shown greater aspirations for college among Negroes than among whites of comparable

> economic levels. But the results suggest as well a considerable lack of realism in aspirations... (Coleman etal. 279)

Not only do the data presented support the above notion but they also point out that channels are apparently viewed as relatively sterile as single agents of social mobility.

Coleman and Campbell also examined the child's sense of control of his environment. Negroes and other minority children show a much lower sense of control of their environment than do whites. (1966, p. 280) In metropolitan areas, about twice the proportion of Negroes as whites give a low-control response to the question: "Good luck is more important than hard work for success. (Agree or Disagree)." Outside metropolitan areas the proportion is about three times as great. On a similar question, in this study however, race was found to not be a significant factor. That is, percentages on the choice "work hard and save money" as the single best means to get ahead were not significantly different by race.

Another finding by Coleman and Campbell was not supported by these data. They state: "It is clear that the average child from each of these minority groups feels a considerably lower sense of control of his environment than does the average white child."[24] None of the reported race-sex subgroups indicated a low sense of control of his environment by choosing "no way" to get ahead. Of course, one might argue that the subject had in mind some other young person's ability to get ahead. The authors, however, assume that in most cases the respondent's primary referent himself, though it is conceivable that responses may have been made depending on whether the subject had himself in mind or some generalized notion of young people.

It was also noted by Coleman and Campbell that Negro parents show a greater interest in their child's education and greater aspirations for his success in education than do white parents at the same economic level. (1966, p. 289) Data presented here suggest that the mother's influence is especially crucial in determining the teenagers primary choice of success means. This finding is congruent with the conclusions of other investigators. Ellis and Clayton, for example, found upward mobility to be linked to a distinctive pattern of maternal authority within the nuclear family. (1963) Webster concluded that in most subcultural groups, and particularly in Negro groups, a child's mother plays the more salient role during his early formative years as far as the institution of the school is concerned. (1965) The academically supportive behaviors of Negro mothers were found by Webster to be related to those self perceptions and aspirations associated with higher grades.

The foregoing discussion should be interpreted only with a full understanding of the limitations of this study. First, there is the inability of the instrument to measure the "true" path of social mobility which each individual believes to be the best means to get ahead. The true channels are undoubtedly much more complex than the simple choices offered. A subject, for example, may consider "work hard", "personality", and "college" all as important channels of social mobility. These categories are not mutually exclusive. The study did however provide a rough idea of the hierarchy involved in choice of the single best success means among teenagers. Also less socially acceptable means of social mobility were not included due to census restrictions. To what extent would these have been popular choices is not known. The 22 percent of white-collar, high income Negro males who answered "other" come to mind here.

Secondly, the subjects themselves may have been inarticulate about their intended means of success or unaware of exactly how they would accomplish their internalized goals. In such cases the alternatives presented by the questionnaire may have been "leading." An implied positive evaluation of education throughout the questionnaire may have biased results, especially for Negroes. Mere quantity of items involving education may give away the questionnaire's "bias," especially to mother's most of whom probably were present when their teenagers filled out the questionnaire. Bias in this regard may be even greater for Negroes than whites, due to the working-class authoritarianism of both Negro and white students from blue-collar families. These respondents may either assume the subordinate role when interacting with the questionnaire or else not fill it in. Thus, one does not answer "no way" when the question clearly asks which of these is the single best way! The question implies that one of the below is the "correct" answer. The subordinate working-class or Negro role does not involve disputing a U.S. Bureau of the Census government questionnaire. The extent of such biases are pure speculation.

Third, individual variation in regard to perception of what "getting ahead" means is unknown. Clearly, teenager's or mother's perceptions of "getting ahead" are relative to a host of variables not considered in the analysis. Therefore, a certain consensus in regard to the meaning of "getting ahead" revolving around financial and social intergenerational upward movement was assumed which may be nonexistent. Likewise, the imputation of success motivations to certain social categories, such as the lower classes, may be unrealistic.

Fourth, respondents may have been confused by the wording of the question. Was the primary referent supposed to be oneself or some generalized notion of "young persons?" The significance for the study of such a bifurcation in the subjects thinking is, again, an unknown quantity. Subjects may or may not have answered differently.

Finally, "contamination" was an issue since mothers and teenagers responded at their own leisure in their own homes. Contamination was assumed to be minimal since significant variation was found between mother's and child's responses to various opinion statements.

Nevertheless, in spite of the aforementioned limitations of this study, fairly conclusive support is presented for the hypothesis that Negro Americans view education as a major channel of social mobility in greater proportions than do whites. On the other hand, education is not viewed as the only channel of social mobility for blacks. Either conformity with the Protestant Ethic or "personality" factors apparently are also perceived as possible alternatives by some. Both black and white Americans apparently subscribe to various channels for upward social mobility. There is variation by race, sex, measured intelligence, and by indications of socioeconomic level or to choice of best success means. Perhaps the first and foremost feature of this analysis is the primary status accorded education as a success means by all subgroups. The frequency of response to either education or hard work as success means disproves the conception that teenagers are cynical about, or rejecting of, culturally established means of getting ahead in this society.

Appendix D

SUBJECT'S PLANS BY RELIGION OF MOTHER*

A. Lewis Rhodes and Charles B. Nam

Florida State University

Many sociological studies of educational aspirations have focused on factors of race and social class, and on values, attitudes, and motivations associated with race and class.[1] Yet, there is theoretical justification and some empirical evidence which lead one to expect a relationship between religious orientation and educational plans, particularly plans to attend college.

Theoretically, there are several reasons for expecting differences in educational aspiration among some of the major religious denominations.[2] The theology of some religious groups is supportive of intellectual endeavors while that of other groups is anti-intellectual.[3] There is a corresponding emphasis on formal education so that some denominations encourage high levels of educational attainment while others (particularly some sects) require only enough education for a literal reading of the Bible.[10]

Also, there is a difference in focus of beliefs of some of the denominations concerning matters in this life versus life in the hereafter. Some "social gospel" religious groups emphasize improvement of existing conditions by self-help and helping others; others ignore individual or group problems of the present and concentrate on qualification or preparation for life after death.[5] Such qualification or preparation is often believed to come through emotiona experience or instantaneous conversion rather than through sustained educational or intellectual experience.[6] It seems reasonable to assume that this kind of religious belief would be less supportive of extended formal schooling.

Finally, there is some difference among the various religious denominations regarding the value of work, self-denial, and delayed gratification. Some religions hold that work has a positive value, that it contributes to the welfare of self and others, and that it is a means of proving one's self worthy of salvation.[7] Others are indifferent with regard to work or even view it as a form of punishment for sin.[8] Those religious bodies which attach a positive value to work might be more likely to endorse diligence in school than those which do not. In general, those religions which value self-perfection and delayed gratification should be supportive of (or provide an ideology that is compatible with) extended education.

The task is complicated by the probability that members and adherents of all religious denominations in the United States are more or less exposed to some survivals of rural Protestant puritanism and fundamentalism which persist from an earlier stage of the nation's history.[9] The strength of this remaining influence is a matter for conjecture. To the extent that it exists, the effects would be to reduce any differences one might expect to observe among the various denominations. It would be too much to expect that, whatever this influence may be, it would have equal impact on all segments of the population in all parts of the country. Conversely, the fact of interfaith marriage, high residential mobility, ecumenical movements, and what some believe to be a trend toward greater secularization--in fact, all aspects of the "melting pot" should also serve to reduce differences in educational plans by religion.[10] Therefore, it seems reasonable to ask: "Are there differences in educational plans by religious identification?"

Previous research has more often focused on religious differences in educational attainment than on religious differences in educational aspiration.[11] Past studies of attainment and aspiration find that Jews have the highest attainment and ambition, Protestants the next highest attainment and ambitions, and Roman Catholics the lowest levels of attainment and ambition. However, at the time that many of these studies were done, the lower attainment and ambition of Catholics may have reflected more of an ethnic difference than a religious difference.[12] Moreover, comparative studies of educational attainments of adults may reflect the typical educational aspirations of different religious groups in the distant past. The most recent studies suggest that differences between Catholics and Protestants in intellectual orientation may be disappearing especially if differences in educational attainment are controlled.[13] Futhermore, most studies confine the comparisons to Catholics, Jew, and a broad category of all Protestants. What little evidence there is regarding differences among Protestants suggests that Protestants in the liberal or moderate denominations are more favorable toward intellectual activity than Protestants in conservative or fundamental denominations or sects.[14] On this basis one might expect that Jews are most likely to expect to attend college, "liberal" Protestants will be next, Roman Catholics will follow, and "conservative" or "fundamentalist" Protestants would be least likely to plan to attend college.[15]

It seems reasonable to expect that whatever relationship there is between religious identification and educational aspiration would be affected by the religious context of the school. This is consistent with the notion that there exists a religious "community" which serves to reinforce differences in attitudes towards education by religious identification.[16]

DATA AND METHODS OF ANALYSIS

The data for the present study were obtained as part of a larger survey of inequality in educational opportunity in the United States according to race, religion, or national origin.[17] They were gathered through the U. S. Census Bureau's Current Population Survey (CPS) in October, 1965.[18]

The analysis in this paper is limited to white persons of both sexes, ages 14 through 19, enrolled in elementary or secondary public or private schools. There are about 6,200 cases in a stratified, multistage cluster sample representing about 11.7 million white teenagers enrolled in school below the college level in the United States.

Information on college plans was obtained from the student's answers to two questions: "Do you plan to attend a two-year community or junior college?" and "Do you plan to attend a four-year (or regular) college or university?" The possible answers were "Yes, definitely," "Yes, maybe," "No," and "Don't know". A student was considered as planning to attend college if he answered either question positively.

Religious identification of the student was measured by his mother's response to the question: "What is your religion?"[19] Response categories were provided for the largest denominations and write-ins were requested for the religious categories "Other Protestant" and "Other religion". No tabulation was made of the write-ins for these residual categories. It is assumed, however, that the "Other Protestant" group includes a majority of persons in more fundamentalist churches and sects and a minority in small liberal Protestant denominations (e.g., Unitarians, Congregationalists).[20]

The religious composition of the school attended was obtained from the school principal's estimate of the percentages of Protestants, Catholics, and Jews in his school. Additionally, it was known whether the school was under parochial, other private, or public control. The large residual category (42.5%) of no information on religious composition of school plus "other religion," "no religion" and "no information" categories of mother's religion does not appear to seriously handicap the analysis.[21]

Both occupation of the household head and the mother's educational attainment were obtained from the basic CPS record. The I. Q. measure is based on a translation of scores from a variety of intelligence tests, as reported for students by their school principals, into equivalent scores. The upper four stanines of I. Q. correspond roughly to a standard I. Q. score of 105 or greater; the lower five stanines represents I. Q. scores of less than 105.[22]

The study is limited to white subjects of both sexes for several reasons. First, there are not enough Negroes or nonwhites in the sample to match the analysis for whites. Secondly, the structure of Negro religious organizations is different from that of white's. Some of the denominations are segregated and it is not a simple matter to demonstrate that Negro branches of churches, such as the

Methodist and Baptist churches, are identical in theology or organization to white branches of these denominations. Third, there are no Jewish Negroes and very few Catholic Negroes in the sample. Although there is a difference in educational plans by sex, the difference is by no means as great as the socioeconomic difference. Futhermore, a preliminary analysis suggests that the sex difference in plans to attend college is relatively constant across subgroups described by religion of mother and socioeconomic status. Therefore, there are no seperate tabulations for boys and girls.

The analysis which follows, of both individuals and schools, is form of multiple regression analysis which has come to be identified as the multiple classification of rates. One can see, for example, whether Catholic youths in Catholic schools are more likely to plan to attend college than Catholic youths in public schools, and further whether this difference persists if the analysis takes into account other factors, such as occupation of the household head and the subject's year in school.[23]

RELIGIOUS IDENTIFICATION

Examining first the effects of religious identification alone, we observe a small but definite relationship between mother's religious identification and subject's educational aspiration. (See Table D-1). The relationship is not nearly as strong as the relationship between educational plans and intelligence test score or occupational level. Furthermore, educational expectations are more closely related to mother's educational attainment than to any of the other variables as they are measured in this study. Although it was anticipated that subjects who had progressed further through the educational system would be more likely to plan for college, there was no significant relationship between college plans and year in school.

Although the general relationship between college plans and religion is rather weak, there are rather large differences between religious categories in the percent planning to attend college (see Table D-2). Ninety-one percent of the Jews either definitely or maybe plan to attend college. In fact, all of the differences between the percent of Jews with college plans and the percent with college plans in each of the other categories of religion are statistically significant, in spite of the very small proportion of Jews in the sample. The persons identified with the more liberal-Protestant and the Roman Catholic denominations are next most likely to plan for college. Subjects in the "Other Protestant" category (which includes mostly fundamentalist, but some liberal religions) are next to least likely to plan to attend college. Only 46 percent of the Baptists plan on college. There are significant differences between plans of liberal Protestants and Baptists, and

Table D-1

ASSOCIATION* AMONG ALL DEPENDENT AND INDEPENDENT VARIABLES: WHITE PERSONS, AGES 14 THROUGH 19 ENROLLED IN ELEMENTARY AND SECONDARY SCHOOLS

Variables	Variables					
	Mother's Religion		I.Q. Test Score	Occup. of Hshld. Head	Mother's Educational Attainment	Subject's Year In School
	Without Context	With Context				
			d_{xy}*			
Definitely or Maybe attend college	.13	.15	.27	.24	.36	.02**
Only Definitely Plan to attend college	.10	.14	.25	.26	.34	.05
Mother's Religion without context			.09	.06	.12	.04**
Mother's Religion with context			.12	.08	.14	.03**
I.Q. Test Score				.12	.18	.06
Occupation of Head of Household					.40	.04**
Mother's Educational attainment						.05
			tau_c*			
Definitely or Maybe attend college	.13	.15	.26	.24	.35	.02**
Only Definitely Plan to attend college	.10	.14	.25	.25	.33	.05
Mother's Religion without context			.10	.08	.13	.04**
Mother's Religion with context			.13	.13	.16	.05**
I.Q. Test Score				.15	.18	.06
Occupation of Head of Household					.37	.04**
Mother's Educational attainment						.05

*Association is measured by Somers' $d_{xy} = P-Q/ P+Q+X_0$ where P = the number of concordant pairs; Q = number of discordant pairs and X_0 = number of pairs tied on the independent variable. (Somers, op. cit., pp. 799-811). It is analogous to an ordinary correlation ratio when the dependent variable is binary. Kendall's $tau_c = P-Q/½ [n(n-1)]$; it corrects for the effect of non-square tables.

**All relationships are significant at less than .01 confidence limit, except those indicated. A chi-square test was used with sample N's underestimated.

Table D-2

PERCENT OF WHITE PERSONS AGES 14 THROUGH 19 ENROLLED IN PUBLIC OR PRIVATE ELEMENTARY OR SECONDARY SCHOOLS WHO PLAN TO ATTEND COLLEGE, BY RELIGION OF MOTHER, RELIGIOUS COMPOSITION OF SCHOOL, INTELLIGENCE TEST SCORE, OCCUPATION OF HOUSEHOLD HEAD, EDUCATIONAL ATTAINMENT OF MOTHER AND SUBJECT'S YEAR IN SCHOOL

Religion and Religious Context, Intelligence Test Score, Occupation of Household Head, Mother's Education, and Subject's Year in School	Estimated N for U. S. (Thousands)		Percent Planning to Attend College			
			Definitely or Maybe Attend 2 year or or 4 year College		Only Definitely Plan to Attend 2 Year or 4 year College	
	Total	High I.Q.	All Cases	High I.Q.	All Cases	High I.Q.
ALL CASES	11715	3747	58	74	35	49
RELIGION & CONTEXT						
Baptist	1027	332	46	69	26	46
50% + Prot.	954	297	46	70	26	47
<50% Prot.	73	35	52	56	32	38
Other large Prot.	2115	969	63	79	39	56
50% + Prot.	1761	781	62	78	38	55
<50% Prot.	354	188	68	83	43	59
Smaller Protestant	977	378	51	71	29	42
50% + Prot.	835	321	50	70	25	40
<50% Prot.	142	57	58	71	35	53
Roman Catholic	2424	1152	62	73	36	47
50% + R. C. - Cath.	823	490	72	78	48	58
50% + R. C. - Pub.	594	207	54	72	26	35
<50% R. C.	1007	455	59	69	33	41
Jewish	192	120	91	99	72	78
10% + Jewish	170	115	94	99	77	79
<10% Jewish	22	5	69	100	37	66
All other cases	4979	796	56	66	34	43
I.Q. SCORE						
Top 4 stanines	3747	3747	74	74	49	49
Bottom 5 stanines	3243	...	43	..	19	..
No I.Q. Score	4725	...	56	..	34	..
OCCUPATION						
White Collar	4288	1693	74	83	52	62
Not White Collar	7427	2054	48	66	25	38
MOTHER'S EDUC.						
Some college	1814	837	85	90	66	74
Finish high School	4812	1783	66	77	30	49
Less than H. S.	5089	1127	49	56	20	30
YEAR IN SCHOOL						
Jr. or Sr.	5191	1829	59	73	38	51
Other	6524	1918	57	74	33	47

between plans of liberal Protestants and other Protestants. The difference between the "Other Protestant" category and the Baptists is smaller, but still significant. The difference between Roman Catholics and Protestants (except liberal Protestant) are significant. The results at this level of analysis support the notion that persons identified with the more fundamentalist, sectarian or individualistic religions are less likely to plan for college. The analysis was repeated for high I. Q. subjects alone and the results parallel those for all cases except that a higher percent plan to go to college and religious differences are somewhat smaller (see Table 2).

It is apparent, however, that religious identification itself is associated with subject's intelligence test score, occupation of household head, and mother's educational attainment (see Table D-1).[24] Therefore, it seems reasonable to ask if any differences observe among the religious categories are merely reflections of differences in the composition of these religious categories. That is, are the differences observed here merely ability or social class differences? Given the interrelations among educational plans, religious identification, intelligence test scores, occupation of household head, mother's educational attainment, and subject's year in school, it seems necessary to resort to a form of multivariate analysis which examines the relationship between educational plans and religious orientation while taking additive effects of the other variables into account. Variations in percent with college plans by religious identification were adjusted for the average effects of the other variables using the multiple classification technique mentioned above.

Variations from the total percent with college plans and the effects of adjustments are shown in Table D-3. It is readily apparent that religious differences in percent with college plans are not independent of the relationship between college plans and intelligence, occupation of household head, and mother's education. The effect of adjusting for each of these factors individually, more so in combination, is to reduce differences in percent with college plans among categories of religious identification. Yet, part of the religious differences persists. Jews, and to a lesser extent, Roman Catholics, are still more likely to plan for college, while Baptists and persons identified with the smaller Protestant denominations are least likely to plan for college.

It may be desirable to distinguish between persons who definitely plan to attend college and those who say they may attend. The foregoing analysis was replicated using the smaller rate of persons who definitely plan to go to college. Examination of the data presented in Tables 1 and 2 reveals that the initial relationships are not appreciably affected by using the more rigorous definition of plans to attend college. The effects of the adjustment procedure are parallel to those shown in Table D-4.[25] The effect, in most cases, is to slightly reduce differences among religious groups. There are greater differences between Jews and the other groups in percent who definitely

Table D-3

UNADJUSTED AND ADJUSTED* DEVITATIONS FROM GRAND COLLEGE PLANS RATE FOR WHITE PERSONS AGES 14 THROUGH 19 ENROLLED IN ELEMENTARY AND SECONDARY SCHOOLS BY MOTHER'S RELIGION, INTELLIGENCE TEST SCORE, OCCUPATION OF HOUSEHOLD HEAD, MOTHER'S EDUCATIONAL ATTAINMENT, AND SUBJECT'S YEAR IN SCHOOL

Religion, Intelligence Test Score, Occupation of Household Head, Mother's Education, and Subject's Year in School	Per Cent in Category	Deviations from Grand College Plans Rate: 57.8 per cent							
		Unad-justed	Net: Relig. & I.Q.	Net: Relig. & Occup.	Net: Relig. & Mo. Ed.	Net: Relig. & Sch. Yr.	Net: Relig. I.Q. & Occup.	Net: Relig. I.Q Occup. Mo. Ed.	Net All Items
RELIGION	100.0								
Baptist	8.8	-11.8	- 9.3	-10.1	- 6.3	-11.7	- 8.2	- 5.0	- 5.0
Other large Protestant	18.0	5.5	4.5	4.8	1.3	5.4	4.0	1.3	1.4
Smaller Protestant	8.3	- 7.0	- 6.7	- 5.7	- 7.0	- 7.0	- 5.6	- 6.1	- 6.1
Roman Catholic	20.7	4.3	2.7	4.5	5.0	4.3	3.0	3.9	3.9
Jewish	1.6	33.6	26.4	23.4	24.0	33.7	18.3	15.7	15.6
Other, No Relig. & NA	42.5	- 1.9	- 1.0	-1.9	-1.2	1.9	- 1.1	- .8	- .8
INTELLIGENCE SCORE	100.0								
Top 4 stanines	32.0	15.8	14.7	...	...	...	12.9	10.4	10.4
Bottom 5 stanines	27.7	-15.1	-14.7	...	...	...	-12.8	-10.6	-10.6
No information	40.3	- 2.1	- 1.6	...	...	...	- 1.5	- 1.0	- 1.0
OCCUPATIONAL LEVEL	100.0								
White collar	36.6	16.2	...	15.5	...	...	13.7	8.3	8.3
Not white collar	63.4	- 9.3	...	-8.9	...	...	- 7.9	- 4.8	- 4.8
MOTHER'S EDUCATION	100.0								
Some college	15.5	27.4	...	...	26.8	...	...	20.1	20.1
Finish high school	41.1	8.1	...	...	7.8	...	...	6.0	6.1
<Finish high school	43.4	-17.4	...	...	-16.9	...	...	-12.9	-12.9
YEAR IN SCHOOL	100.0								
Junior or senior	44.3	1.3	...	...	...	1.2	...	...	- .5
<Junior	55.7	- 1.0	...	...	...	- .9	...	...	.5

*Adjusted by multiple classification.

Table D-4

UNADJUSTED AND ADJUSTED* DEVIATIONS FROM GRAND COLLEGE PLANS RATE FOR WHITE PERSONS AGES 14 THROUGH 19 ENROLLED IN ELEMENTARY OR SECONDARY SCHOOLS BY MOTHER'S RELIGION, RELIGIOUS COMPOSITION OF SCHOOL, INTELLIGENCE TEST SCORE, OCCUPATION OF HOUSEHOLD HEAD, MOTHER'S EDUCATIONAL ATTAINMENT, AND SUBJECT's YEAR IN SCHOOL

Religion, Rel. Composition, Intelligence Test Score, Occupation of Household Head, Mother's Education, and Subject's Year in School	Per Cent in Category	Deviations from Grand College Plans Rate: 57.8 percent							
		Unadjusted	Net: Relig. R. Comp. & I.Q.	Net Relig. R. Comp. & Occup.	Net Relig. R. Comp. & Mo. Ed.	Net Relig. R. Comp. & Sch.Yr.	Net Relig. R. Comp. I.Q. & Occup.	Net Relig. R. Comp. Occup. I.Q. & Mo. Ed.	Net All Items
RELIGION AND COMPOSITION	100.0								
Baptist									
50% + Protestant	8.2	- 12.3	- 9.6	- 10.6	- 7.0	- 12.1	- 8.5	- 5.3	- 5.4
<50% Protestant	.6	- 5.3	- 7.1	- 3.5	1.2	- 5.3	5.3	- .5	- .5
Other large Protestant									
50% + Protestant	15.0	4.5	4.1	3.8	.0	4.5	3.4	.3	.3
<50% Protestant	3.0	9.9	7.0	9.8	8.2	9.9	7.2	6.5	6.5
Smaller Protestant									
50% + Protestant	7.1	- 8.0	- 7.8	- 6.7	- 7.6	- 7.9	- 6.7	- 6.8	- 6.8
<50% Protestant	1.2	- .1	- .1	.0	- 3.8	- 1.5	- .9	- 1.5	- 1.5
Roman Catholic									
50% + R.C. - Cath. Sch.	7.0	14.3	9.3	11.8	11.3	14.3	7.6	7.0	7.0
50% + R.C. - Pub. Sch.	5.1	- 4.1	- 2.1	- 1.3	1.0	- 4.0	.1	2.8	2.8
<50% R.C.	8.6	1.0	.4	1.9	2.2	1.0	1.2	2.0	2.0
Jewish									
10% + Jewish	1.4	36.5	28.8	25.7	24.9	36.6	20.0	16.2	16.2
<10% Jewish	.2	10.7	9.8	7.0	17.0	11.3	6.7	12.8	12.5
Other, No Relig. & NA	42.5	- 1.9	- 1.1	- 1.2	- 1.2	- 1.9	- 1.1	- .9	.9

*Adjusted by multiple classification

Table D-4 (cont'd.)

UNADJUSTED AND ADJUSTED* DEVIATIONS FROM GRAND COLLEGE PLANS RATE FOR WHITE PERSONS AGES 14 THROUGH 19 ENROLLED IN ELEMENTARY OR SECONDARY SCHOOLS BY MOTHER'S RELIGION, RELIGIOUS COMPOSITION OF SCHOOL, INTELLIGENCE TEST SCORE, OCCUPATION OF HOUSEHOLD HEAD, MOTHER'S EDUCATIONAL ATTAINMENT, AND SUBJECT'S YEAR IN SCHOOL

Religion, Rel. Composition, Intelligence Test Score, Occupation of Household Head, Mother's Education, and Subject's Year in School	Per Cent in Category	Unadjusted	Deviations from Grand College Plans Rate: 57.8 percent						
			Net: Relig. R. Comp. & I.Q.	Net: Relig. R. Comp. & Occup.	Net: Relig. R. Comp. & Mo. Ed.	Net: Relig. R. Comp. & Sch. Yr.	Net: Relig. R. Comp. I. Q. & Occup.	Net: Relig. R. Comp. Occup. I.Q. & Mo. Ed.	Net: All Items
INTELLIGENCE SCORE	100.0								
Top 4 stanines	32.0	15.8	14.3	...	...	...	12.7	10.2	10.2
Bottom 5 stanines	27.7	-15.1	-14.4	...	...	...	-12.5	-10.4	-10.4
No information	40.3	- 2.1	- 1.5	...	...	...	- 1.4	- .9	- 1.0
OCCUPATIONAL LEVEL	100.0								
White collar	36.6	16.2	...	15.2	...	...	13.5	8.3	8.3
Not white collar	63.4	- 9.3	...	8.8	...	...	- 7.8	- 4.8	- 4.8
MOTHER'S EDUCATION	100.00								
Some college	15.5	27.4	...	...	26.6	...	...	20.1	20.1
Finish high school	41.1	8.1	...	...	7.7	...	...	6.0	6.1
<Finish high school	43.4	-17.4	...	...	16.7	...	...	-12.9	-12.9
YEAR IN SCHOOL	100.0								
Junior or senior	44.3	1.3	...	...	...	1.1	...	...	- .5
<Junior	55.7	- 1.0	...	...	...	- .9	...	...	.5

*Adjusted by multiple classification

plan to attend college. There are slightly smaller differences among the categories of Protestants and between these categories and Roman Catholics. Although the effects of the adjustment procedures are parallel for the two sets of data, there is a small decrease in the definite-college-plans rate for subjects identified with the smaller Protestant denominations when the rate is adjusted for the effects of mother's education or subject's year in school. Although data are lacking to show it, it seems likely that these adjustments may serve to reduce the heterogeneity of this religious category, which includes everything from Unitarians and Congregationalists to Church of God and Pentecostal Churches.

THE CONTEXT OF RELIGION

Subjects who are identified with the various religious categories were further cross-classified according to the religious composition of the school in which they are enrolled. In the absence of any data which would aid in the selection among alternative cutting points, schools were classified according to whether 50 percent or more of of the pupils were Protestant, 50 percent or more were Roman Catholic, and 10 percent or more were Jewish. In the case of predominantly Catholic schools, a further distinction was made between those which are Catholic-controlled and those which are not. Since Jews constitute such a small percentage of the total sample, a distinction was made between those attending schools with 10 percent or more Jewish students and those attending schools which had less than 10 percent of their students Jewish. The disproportion of the marginal totals indicates that this cut-point should have been placed at a higher percentage.

At first glance, the addition of religious context adds little to the prediction of college plans (see Table D-1). This is partly a consequence of inability to distinguish among specific Protestant. denominational contexts when so large a fraction of the sample is Protestant. Nevertheless, there are appreciable differences by context within broad categories of religion, especially for Jews and Roman Catholics (see Table D-2). Jews in schools with an over-representation of Jewish pupils and also Roman Catholics in predominantly Catholic schools are much more likely to plan to attend college than their religious counterparts in other schools. Among Roman Catholics in predominantly Catholic schools, those in parochial schools are much more likely than those in public schools to plan to attend college. Baptists in predominantly Protestant schools are less likely than other Baptists to plan to attend college. Persons from smaller Protestant denominations in predominantly Protestant schools are also less likely to have college plans than those in schools with a Protestant minority to plan to attend college. There is also an appreciable context difference for liberal Protestants.

Rates of college plans for subgroups described by cross-classification of religious identification and religious context with the control variables were computed. The rates were first compared without adjusting for other variables, and then were adjusted for the effects of intelligence test score, occupation of household head, and mother's education individually and simultaneously (see Table D-4). Despite some atenuation of differences between subgroups, the differences by religion remain most strongly for Jews in both types of context. The adjustment procedure serves to slightly increase the advantage of Jews in schools which are less than 10 percent Jewish. The difference for Roman Catholics and persons identified with the major Protestant denominations are considerably reduced. But the adjustment process has little effect on the college plans rate for subjects connected with the smaller Protestant denominations. It might be worth noting that the Catholics in predominantly-Catholic public schools, who are initially below the grand rate, are at the grand rate after adjusting for mother's education alone or in combination with one or more of the other control variables.

Preliminary examination of interaction of religion and each of the other control variables with college plans suggests that the data fit the additive model fairly well. Likewise, examination for interaction of fourth-order relationships with context still tends to support the additive assumption with few exceptions.

INTERPRETATIONS AND CONCLUSIONS

The results of this study support the notion that religious orientation is related to educational expectations. Furthermore, the evidence leads to rejection of the contention that differences in educational plans by religion are simply a consequence of the socioeconomic composition of religious denominations. That the relationship is a modest one is no surprise, given the rather crude classification of religious identification and religious context employed in the analysis and the absence of any measures of the subject's adherence to the values and norms of his religion or measures of the strength of bonds between the subject and a more specific unit of religious organization, such as a particular congregation.

The high rate of college plans (91%) for pupils with Jewish mothers is particularly noteworthy, especially when the effect of religious context is added to the analysis. If one-tenth or more of the student body is Jewish, the definite-college-plans rate for Jewish students is 26 percent higher than the rate for Jewish students in schools which are less than one-tenth Jewish. The rate is 13 percent higher even when intelligence and occupation are included in the analysis and 4 percent higher with adjustment for all variables. It would be desirable to have more evidence to test the hypothesis that exposure of a Jewish student to the norms and values of a Jewish subcommunity is important in formation of educational expectations.

On the other hand, Roman Catholic students in Catholic-controlled schools are more likely to plan for college than Catholic pupils in public schools, even in predominantly Catholic public schools. This difference persists when effects of control variables are taken into account. Since Catholics in predominantly-Catholic public schools are no different in college expectations from Catholics in public schools with a minority of Catholic students after controls are introduced, it raises the question: "Does the religious-context-of-school effect represent a religious subcommunity effect?"

It seems likely that at least two things may be operating to produce a difference between the school context effect for Jews and the context effect for Catholics. It is possible that parents who are more closely identified with a Catholic subcommunity are more likely to send their children to a parochial school. Also, Catholic schools may be more selective, in that poorly motivated or problem pupils can be expelled more readily to the public schools. Of course, public schools which are predominantly Catholic in composition may have other characteristics which are unmeasured in this study. Some of these schools may also be predominantly working class or they may have over-representation of pupils from certain ethnic minorities (such as Latin-Americans) which could cancel out the general positive effect of being a Catholic among Catholics on chances of having college plans. Conversely, parochial schools may be concentrated in urban places with over-representation of high SES Roman Catholics. Finally, the higher rate of college plans among parochial school pupils may represent the effort of Catholic educational leaders to promote attendance at Catholic colleges and universities as a way of perpetuating the system of Catholic religious values.

We would like to underscore the lower rate of college expectations for pupils in the smaller Protestant denominations, particularly those in predominantly Protestant schools. This difference is relatively independent of intelligence and the socioeconomic measures. This observation is consistent with the contention that the anti-intellectualism of Protestant fundamentalism carries over into formulation of educational expectations. Unfortunately, the data are insufficient to supply the links between the assumed Protestant fundamentalism of these pupils and the pupil's college plans. Other data suggest that this is partially a consequence of region.

FOOTNOTES

* Condensed version of a paper presented at the annual meeting of the American Sociological Association, San Francisco, California, August 31, 1967. Entitled "The Religious Context of Educational Expectations." The research on which the analysis is based was partially supported by a U. S. Office of Education research contract, OE 5-99-150, and partially supported by contract OE-2-7-001790-2023.

1. The literature is too extensive to cover in a footnote. Some recent studies containing many citations to earlier works include those by Edward McDill and James Coleman, "High School Social Status, College Plans, and Interest in Academic Achievement: A Paneled Analysis," American Sociological Review, 28 (December, 1963), pp. 905-906; William Sewell, "Community of Residence and College Plans," American Sociological Review, 29 (February, 1964), pp. 24-25; and Glen Elder, "Achievement Orientations and Career Patterns of Rural Youth," Sociology of Education, 37 (Fall, 1963), pp. 30-58.

2. Richard Hofstadter, Anti-intellectualism in American Life (New York: Alfred A. Knopf, 1963) especially Part II, "The Religions of the Heart," pp. 55-141; Bernard C. Rosen, "Race, Ethnicity, and the Achievement Syndrome," American Sociological Review, 24 (February, 1959), pp. 47-60; Fred Strodtbeck, "Family Interaction, Values, and Achievement," and Nathan Glazer, "The American Jew and the Attainment of Middle Class Rank: Some Trends and Explanations," both in Marshall Sklare, editor, The Jews: Social Patterns of an American Group (Glencoe, Ill.: Free Press, 1958), pp. 147-165 and 138-146; and D. C. McClelland, The Achieving Society (New York: D. Van Nostrand Company, Inc., 1961), pp. 336-373.

3. Richard Hofstadter, op. cit.

4. Ibid. See also James S. Coleman, The Adolescent Society (New York: The Free Press of Glencoe, 1961), pp. 1,2.

5. F. E. Meyer, The Religious Bodies of America (St. Louis, Mo.: Concordia Publishing House, 1954); see references on social gospel denominations: Presbyterians, Congregationalists, Northern Baptists, Episcopalians, and Methodists, on pages 232, 253, 269, 279, and 308, while references to perfectionism of the founders of Methodism and of the holiness bodies are found on pages 292-297 and 313-315.

6. Ibid., pp. 317-328.

7. Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, translated by Talcott Parsons (New York: Charles Scribner's Sons, 1958); Hofstadter, *op. cit.* pp. 59-64; and Gerhard Lenski, *The Religious Factor* (Garden City, New York: Doubleday and Co., Inc., 1963), pp. 91-98.

8. Lenski, *op. cit.*, pp. 98, 274-275.

9. Hofstadter, *op.* cit., pp. 87-140.

10. N. J. Demerath III, *Social Class in American Protestantism* (Chicago: Rand McNally & Co., 1965), pp. 63-72.

11. Bernard Lazerwitz, "A Comparison of Major United States Religious Groups," *Journal of the American Statistical Association*, 56 (September, 1961), pp. 568-579; G. Lenski, *op. cit.*, pp. 262-263; and B. Rosen, *op. cit.*, p. 58. See also Norval D. Glenn and Ruth Hyland, "Religious Preference and Worldly Success: Some Evidence From National Surveys," *American Sociological Review*, 32 (February, 1967), p. 76; Albert J. Mayer and Harry Sharp, "Religious Preferences and Wordly Success," *American Sociological Review*, 27 (April, 1962), p. 224; Donald J. Bogue, *The Population of the United States* (Glencoe, Ill.: The Free Press, 1959) p. 701. Charles B. Nam, A. Lewis Rhodes, and Robert E. Herriott, "School Retention by Race, Religion, and Socioeconomic Status," paper read at the Southern Sociological Society annual meeting in Atlanta, Georgia, April, 1967.

12. Andrew M. Greeley, "Influence of the 'Religious Factor' on Career Plans and Occupational Values of College Graduates," *American Journal of Sociology*, 68 (May, 1963), pp. 658-671.

13. Andrew M. Greeley, "Religion and Academic Career Plans: A Note on Progress," *American Journal of Sociology*, 72 (May, 1967), pp. 668-672.

14. A. Lewis Rhodes, "Authoritarianism and Fundamentalism of Rural and Urban High School Students," *Journal of Educational* Sociology, 34 (November, 1960), p. 103.

15. Terms "liberal" and "social gospel" are used to refer to the following large Protestant denominations: Methodist, Presbyterian, Lutheran, and Episcopal Churches. The "conservative" and "fundamentalist" Protestant denominations include Assembly of God, Church of the Brethern, Baptists, Church of God, Church of Christ, Church of Latter Day Saints and the Holiness, Jehovah's Witness, and Pentecostal sects. This

classification is consistent with that employed by Mayer, Rhodes, op. cit., and by Lyle E. Larson and Theodore B. Johannis, Jr., "Religious Perspective and the Authority Structure of the Family, "Pacific Sociological Review, 10 (Spring, 1967), p. 16. See also Earl D. C. Brewer, "Religion and the Churches," in Thomas R. Ford, (ed.), The Southern Appalachian Region (Lexington: University of Kentucky Press, 1962), p. 205.

16. Gerhard Lenski reports relationships between loyalty to the Catholic church and its norms, loyalty to the Catholic Subcommunity, and previous attendance at Catholic school for a sample of Detroit adults, op. cit., 262-274. James S. Coleman, found that boys in a predominantly Roman Catholic public school, "Hillberg", had a higher percentage with college plans than boys in a Roman Catholic parochial school, and "Executive Heights," with 31 percent Jewish pupils, had the highest college plans rate. op. cit., p. 270. Also see the speculations of Ralph H. Turner, The Social Context of Ambition (San Francisco: Chandler Publishing Company, 1964), pp. 7 and 24.

17. In connection with Title IV of the Civil Rights Act, Public Law 88-352, 88th Congress, H. R. 7152, July 2, 1964, the Commissioner of Education was requested to undertake a survey of the lack of availability of equal educational opportunities in the U. S. In partial fulfillment of that request, the U. S. Office of Education asked the authors and Robert E. Herriott to undertake a sample survey of the school-age population in order to gather information bearing on the problem. This larger study is related to the study by James S. Coleman, et al., Equality of Educational Opportunity (Washington, D. C.: U. S. Government Printing Office, 1966), and an earlier report on nonenrollment in school is reported in that volume.

18. See U. S. Bureau of the Census, "School Enrollment: October, 1965," Current Population Reports, Population Characteristics, Series P-20, No. 162, (March, 1967), for the basic school enrollment data which was obtained from the same sample as the information reported in this paper.

19. It is assumed that all but a small fraction of subjects have the same religious preference as the mother. H. H. Remmers and D. H. Radler report that 88 percent of teenagers in a large nationwide poll indicate they have the same religious beliefs as their mother. The American Teenager (Indianapolis: Bobbs-Merril Co., Inc., 1967), p. 168. A. Lewis Rhodes, Albert J. Reiss, and W. Haynes Dyches found that more than 7 out of 10 junior and senior high school pupils attend the

same church as their mothers, as reported in their paper, "The 'Religious Factor' and Delinquent Behavior," read at the annual meeting of the American Sociological Association, Miami Beach, Florida, 1966.

20. Bogue, op. cit., pp. 690-692.

21. The 42.5 percent residual category breaks down as follows: 5.9% Baptists, 10.8% liberal Protestant, 4.4% other Protestant, 10.5% Roman Catholic, 1.3% Jewish, and 9.6% with another religion, no religion, or no information. The percent loss of cases to the residual subgroup does not vary greatly from one category of religion to the next: Baptist, 40; Liberal Protestant 37; other Protestant, 35; Roman Catholic, 34; and Jewish, 44. This percent loss is also regular within subgroups described by cross-classification of religion and college plans or occupation of household head. Exceptions white-collar Baptists, with only 34% loss, and those Roman Catholics having college plans, with only 31% loss. Further evidence of lack of bias is evident in Tables 2, 3, and 4, in which the college plans rate for the residual group is almost identical to the grand rate for all cases at all levels of analysis.

22. H. F. Kiser, "A Modified Stanine Scale," Journal of Experimental Education, 26 (1958) p. 261.

23. For a more detailed explanation of the procedure, see James N. Morgan et al., Income and Welfare in the United States (New York: McGraw-Hill, 1962), Appendix E.

24. See footnotes 1, 10 and 11.

25. Tables showing effects of this adjustment are available from authors upon request.